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The Health Bulletin

Published by THE NORTH CAROLINA STATE BOARD OF HEALTH

This Bulletin will be sent free to any citizen of the State upon request.

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Vol. XXXI

APRIL, 1916

No. 1

CONSERVE THE PUBLIC HEALTH

HEALTH PLANK IN THE PLATFORM ADOPTED BY DEMOCRATIC PARTY, APRIL 25, 1916

The conservation of public health is now recognized as a problem demanding consideration of all enlightened governments. We rejoice in the splendid progress made by our State in combating diseases among our people, in reducing our death rate, in increasing the sum total of health, happiness, and efficiency of our citizens, and in establishing a justifiable record of healthfulness as compared with other States of the Union. We advocate a continuance and strengthening of the humane policy now in force in this State for the protection of the public health, and the eradication of preventable diseases.

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FREE PUBLIC HEALTH LITERATURE

The State Board of Health has a limited quantity of health literature on the subjects listed below, which will be sent out, free of charge, to any citizen of the State as long as the supply lasts. If you care for any of this literature, or want some sent to a friend, just write to the State Board of Health, at Raleigh. A postcard will bring it by return mail.

- No. 12. Residential Sewage Disposal Plants.
- No. 19. Compilation of Public Health Laws of North Carolina.
- No. 23. The Vital Statistics Law.
- No. 27. The Whole-Time County Health Officer.
- No. 30. Measles.
- No. 31. Whooping Cough.
- No. 32. Diphtheria.
- No. 33. Scarlet Fever.
- Anti-Spitting Placards (5 inches by 7 inches).
- No. 39. Tuberculosis Leaflet.
- Anti-Fly Placards (14 inches by 22 inches).
- Anti-Typhoid Placards (14 inches by 22 inches).
- Anti-Tuberculosis Placards (14 inches by 22 inches).
- No. 41. Tuberculosis.
- No. 42. Malaria.
- No. 44. State Policy for the Control of Tuberculosis.
- No. 45. The Control of Smallpox.
- No. 46. Compilation of County Health Laws.
- No. 47. Privy Leaflet.
- No. 50. Baby Leaflet.
- No. 51. Rules and Regulations of County Boards of Health.
- No. 52. Malaria and What Everybody Should Know About It.
- No. 53. Disinfection After Diphtheria, Measles, or Whooping Cough.
- No. 54. Disinfection After Scarlet Fever.
- No. 56. Tuberculosis Leaflet No. 2.
- No. 57. Health Helps for Teachers.
- No. 58. Fly Leaflet.
- No. 59. Typhoid Fever Leaflet.
- Sanitary and Hygienic Care of Prisoners.
- No. 60. Cancer Leaflet.
- No. 61. How to Nurse a Tuberculous Patient.
- No. 63. Health Catechism.
- No. 67. Adenoids.
- No. 68. Pellagra.
- No. 69. Quarantine Rules and Regulations for Infantile Paralysis.
- The Child.*
- Teeth, Tonsils, and Adenoids.*
- How to Live Long.*
- Hookworm Disease.*
- A War on Consumption.*
- Milk.*
- Some Facts About Scarlet Fever.*
- Typhoid Fever and How to Prevent It.*
- How to Build a Sleeping Porch.*
- Dental Lectures†
- Dental Hygiene†

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Health Bulletin

PUBLISHED BY THE NORTH CAROLINA STATE BOARD OF HEALTH

Vol. XXXI

APRIL, 1916

No. 1

EDITORIAL BREVITIES

THE DELAYED BULLETIN

The State Board of Health calls attention to the fact that while this and several other issues of the Health Bulletin will appear late, the cause is in no way chargeable to this Board or to the Commissioner of Labor and Printing. Although the printing fund of the Board has been exhausted, through the courtesy of the State Printers, Edwards & Broughton Printing Company, and the Commissioner of Labor and Printing, the Board will be enabled to continue the publication of the monthly Health Bulletin, although in reduced size. Just at this time, however, conditions prevailing in the paper market render it impossible to secure paper at a reasonable price in sufficient quantities to issue the Bulletin on time. It is hoped that normal conditions in the paper market will soon obtain and that the Bulletin may appear again on time.

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Typhoid fever always represents an unnecessary waste—either of time, money, or human life.

One dose of anti-typhoid vaccine does not offer immunity against typhoid fever, but three doses or the complete treatment does. If you are going on a trip this summer or on your vacation, give yourself time to take the three doses before leaving. This requires but two weeks, as the doses are given seven days apart.

There are just two simple rules which, if every man and woman would heed, would save many an accident and many a death. They are: Neither give nor take medicine from an unlabeled bottle, and neither give nor take medicine without first reading the label.

"Go after the stables" and "Clean up and keep clean" are the two most successful methods yet found for ridding a town of flies. "There is no royal road to freedom of flies," says Mr. L. C. McCormick of Asheville, "but clean up and keep clean is the winning slogan."

THOROUGH PHYSICAL EXAMINATION NECESSARY

Advice of Dr. Rankin—What Constitutes Thorough Examination

IN the following correspondence, containing a letter from a chronic sufferer setting forth his ills, and the advice given him by Dr. W. S. Rankin, of the State Board of Health, the need of a thorough physical examination is urged, and what constitutes such an examination is clearly suggested. "Go to a well recognized physician and be thoroughly examined," is the keynote of Doctor Rankin's advice.

This correspondence is a type of a feature of health work done by the

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Board through correspondence, and represents not a small class of people who frequently call for help.

State Board of Health, Raleigh, N. C.

Dear Sirs:—I have had a very bad stomach and bowel trouble for the past two years. My doctors have treated me for nervous indigestion, but have failed to do me any good.

I have a craving appetite for food and can eat most anything, but everything I eat except sweet milk seems to hurt me. My stomach and bowels pain and ache most all the time and are worse just after meals than any other time. I have heart-burn and am very nervous when trying to work. I am very much constipated and have to take oil daily. I have soreness or tenderness in left side just above left hip bone and under left shoulder blade. Have soreness or pains in my back near or in my kidneys.

I am a married man, 35 years old. I weigh 150 pounds, but am not losing much in flesh. I do not drink, smoke, nor chew tobacco. I have had catarrh of head and throat for twenty years. I hawk up scales and my breath smells bad, but I do not cough. Please consider my case and advise me.

Doctor Rankin's Reply

Dear Sir:—What you need is a very thorough physical examination. No intelligent physician could prescribe for your case without making such an examination. By that I mean to get your full history, including the history of your past life and your heredity history, and then make a thorough physical examination of you, including certain laboratory tests. To attempt to prescribe for you by mail or to prescribe for you without the advantage of a full examination, clinical and physical, would be to guess at your trouble and subject you to a loss of time and perhaps to expenses of treatment that would be unfair to you.

I would, therefore, advise you to go to some well recognized physician and be thoroughly examined. Medical treatment based upon anything except a thorough examination is guess work, and frequently causes patients a loss of time which results in a curable disease becoming an incurable one. A chronic trouble such as you describe, which has been so costly to you in its inroads on your vitality and physical efficiency, should call for a most careful examination. Such an examina-

tion will require a careful questioning by a physician probably lasting from fifteen minutes to a half hour, a very thorough physical examination of your chest and abdomen bared, a laboratory examination of your urine, probably of your blood, and it certainly seems to me, from what you tell me in your letter, that you should be given certain test meals, have the contents of your stomach withdrawn through a stomach tube and tested for the extent of digestion. If you haven't had such an examination, go to a physician who can give you this thorough form of treatment.

A FELLOW-WORKER SYMPATHIZES

The following letter is typical of a number of very kind expressions received recently regarding the depleted printing fund of the Board. This fellow-worker's sympathy and kind words of encouragement are sincerely appreciated.

The delayed March number of your bulletin has just come to hand. I am sorry to read the announcement concerning the difficulty you are having, and hope that you will soon be able to get additional funds for continuing the publication of the bulletin in its original form. I can honestly say that there is not another bulletin which I look forward to as much as I do yours. Whenever I have occasion to teach students about preparing material for such bulletins, I hold yours up as a model. I am sure it must be doing a good work.

With kind regards, I am,

Sincerely yours,

CHARLES BOLDUAN,
Director, Bureau of Public Health
Education, New York City De-
partment of Health.

"To cure is the voice of the past; to prevent is the demand of the future."
—Buffalo Bulletin.

The one indispensable asset of the working man is health.

"It is in the power of man to rid himself of every infectious disease."—
Pasteur.

PERSONAL HYGIENE



TAKING CARE OF BUSINESS MEN

Why the Business Man is Especially Prone to Arterio Sclerosis

By CHAS. O'H. LAUGHINGHOUSE, M.D.,
Greenville, N.C.

SOME phases of preventive medicine can best be taught by boards of health, some by practicing physicians; but to acquaint the public, especially the energetic business man, that there is such a thing as arterio sclerosis and that it is largely preventable, is worth the effort of the profession as a whole.

We show the consumptive how to prolong and save his life. We take care of the defects of school children. We teach everybody how to avoid infectious and contagious diseases. We vaccinate for smallpox. We immunize against typhoid. We print and disseminate information for all kinds and conditions of men, and we do it largely through the business man's influence, his money, his vote, and his coöperation. Therefore we most emphatically owe it to him to give freely of whatever information we possess which tends to prolong his life, enhance his happiness, and further his usefulness.

None of us who live long enough can avoid growing old. But the business man's manner of living is so conducive to the premature appearance of arterio sclerosis, or hardening of the arteries, that he, above all others, is most markedly prone to acquire it. The best type, today, is living too rapidly, burning the candle at

both ends, growing old prematurely, so much so that it is alarming how short a time he stays young. Think of the millionaire widows in the world.

The business man eats too fast and too much. Many drink too much. He throws into his circulatory system without knowing it excessive food and fluids, combined frequently with toxic products, which cause too early a condition of high arterial tension. He neglects his bowels and thereby causes absorption of poisonous products from the intestines which brings about a rise in blood pressure. He foregoes even mild exercise, which is an essential feature to the art of living long. If he does not abuse his body by over-eating and drinking, and so wear out his splanchnic vessels, excessive brain work and worry and all their attendant evils become his habit.

He should be taught that he is entirely dependent on his circulatory system, and that every man is as old as his arteries; that the thorough chewing of food is a process that keeps men a long time young; that requisite sleep and recreation by bodily exercise is essential to all animal life; that excessive work, worry and nervous tension puts a something into the tissues which hardens the arteries and raises blood pressure; that alcohol brings about brittle arteries; that sexual excess and syphilis cause arterio sclerosis.

The prevention of premature arterio sclerosis may well be labeled a plea for a rational plan of daily living to

which moderation is the key-note. To grow old gracefully is an undertaking which must be begun when young. Habitual bodily hygiene, not only as to diet, exercise, temperance, sleep, and rest, but recreation as well, should begin early in life. There should be mental change. One's life should be planned so as to bring into each day a diversification of mental exercise, a diversification of interests. It is restful—so much so that some wise man has said that "rest is but change of occupation."

Hobbies are oftentimes the salvation of business men. They may be ridden hard, for they help to bear men away from daily cares, business ruts and worries.

The man who can best keep the balance between his mental and physical work is the man who accomplishes most, is happiest, and who, all other things being equal, will live and produce the longest.

The trend of modern medicine is toward prevention. We possess State authority to control epidemics. We urge over and over again the value of early diagnosis in all chronic diseases. We know that many of them—and this applies particularly to arterio sclerosis—can be largely prevented by the recognition of and the institution of proper hygienic and medical treatment.

It is every physician's duty to instruct the business man in the fundamental rules of health. Accurate knowledge concerning the prevention of disease should be spread among the laity. Correct information concerning the modes of infection and dangers of waiting until disease is well advanced places people where they can with greater certainty nip ill health in the bud. It is difficult to turn people away from the habit of having a drug clerk prescribe for their ills, but they can be educated out of it. It is unfortunate that most of the pains and aches that flesh is heir to speedily pass away with little or no treatment—for herein lies the strength of charlatanism and

quackery. Unfortunately, yes, for a man cannot tell whether the trivial complaint from which he suffers is any different from the one that was easily conquered six months ago. But instead of recovering he grows worse. Hope leads him to dilly-dally until he at last seeks medical advice only to find that the disease has made such progress that little can be done. Is the profession or the public to blame?

The fight for existence is keen. Competition in profession and trade is acute. So much so that to rise above the average requires exceptional physical as well as mental powers; therefore we should instruct the business man to consult his doctor twice each year. He has an expert go over his automobile at stated intervals just to prolong its life and efficiency. He takes an inventory of his business assets and liabilities each fiscal year. He studies this and that branch of his affairs with an eye-view to safety first. He employs this system and that so as to stop business leaks. He pays large amounts annually for insurance, life and fire. Yet he fails to have an efficient engineer go over his greatest business asset, namely, himself. And his failure is because he has not had the importance of it brought to his attention. The dentist has his patients return at stated intervals, only to see if all is well. How much more rational would it be if men and women past the age of forty had a careful physical examination made twice a year just to find out if all is well.

NO EMPLOYMENT FOR CIGARETTE SMOKERS

When two men such as Edison and Ford join in the crusade against cigarettes, no father or mother can fail to look with anxiety upon the beginning of the habit in a son or daughter. Mr. Ford says to his friend, the American boy: "If you will study the history

of almost any criminal, you will find that he is an inveterate cigarette smoker. Boys who smoke cigarettes, as a usual thing, go with other smokers to the pool-rooms and saloons. The cigarette drags them down. Hence, if we can educate them to the dangers of smoking, we shall perform a service."

Mr. Edison says, in speaking of the degeneration produced by narcotics and cigarettes: "Unlike most narcotics, this degeneration is permanent and uncontrollable. I employ no person who smokes cigarettes." This is a lesson that every father and mother may well take to heart. Already some of the greatest industries of this country, especially the railways, refuse to employ any one who uses alcoholic beverages. Now one of the greatest industries of this country, that presided over by Mr. Edison, refuses to employ any one who smokes cigarettes. It is not difficult to see that the boy who learns to use tobacco is loading himself with a heavy handicap for the race of life. He is excluding himself from employment in some of the greatest industries in the world.—Harvey W. Wiley in *Good Housekeeping*.

BAD BREATH

The cause of bad breath may be the nose, the tonsils, or the teeth. Although the proof is not conclusive, the probability is that the most frequent cause is the absorption of certain substances from the intestinal tract. The proof is conclusive that under certain circumstances aromatic substances are formed in the intestines, absorbed into the blood, and excreted by certain organs. One way to temporarily relieve bad breath is to take a purge and eat very lightly for three days. Bad breath is often present in the constipated.

Be the weather foul or fair,
Man always needs the good fresh air.

OVEREATING SHORTENS LIFE

Heavy Diners Are Bad Risks, Says Life Insurance Actuary

INSURANCE statistics show that the man who overeats as well as the man who indulges in alcoholic drinks is a bad risk, according to Arthur Hunter, a life insurance actuary. Mr. Hunter delivered a warning against over-indulgence in an address to a Young Men's Christian Association recently. He said that the heavy diner as well as the heavy drinker was sure of a short life, but seldom a merry one, because the conditions under which he lived precluded the full enjoyment of either mental or physical well-being. But at the top of the list of life-shortening habits he placed the use of alcoholic liquors.

"Seventy years ago," said Mr. Hunter, "an abstainer was unknown. When the first abstainer applied to a large London company for insurance a special meeting of the board of directors was called to deal with this phenomenon, and a special premium was demanded. Contrary to all expectations, this man lived to be 82 years old."—*Daily News, Chicago*.

Keep well is the slogan that is sounding ever louder and louder, and with this slogan should go the supplementary advice that when sick early treatment is the safest and surest treatment. As the twig is bent, the tree is inclined. It is comparatively easy to straighten the twig, but the "inclined" tree is likely to break under the strain of a curative effort. Just so with the human; defects and physical impairments are much more easily remedied in early life than in the middle or advanced ages, and nearly all illnesses are much more readily cured in their early than in their advanced stages.

Swat the fly, now.

INFANTILE PARALYSIS OR POLIOMYELITIS

By DR. W. S. RANKIN, Secretary of the North Carolina State Board of Health

History

This disease was first recognized by von Heine in 1840. A significant fact bearing on the comparatively slight degree of contagiousness of this disease is that it was not until 47 years later, in 1887, that it was observed to occur in epidemic proportions. It is only recently, since 1907, that the disease has been recognized in the United States in epidemic form. Since that time epidemics have occurred in New York City, Massachusetts, Rhode Island, Minnesota, Wisconsin, Iowa, Texas, Pennsylvania, and in lesser degree in other places. The present epidemic in the City of New York, which, at the time of this writing, has reached the unprecedented level of nearly 7,000 cases, marks the height of the epidemic development of infantile paralysis.

Cause

Out of the confusion of conflicting theories as to the mode of transmission of infantile paralysis, it seems best to set down the few established facts regarding the propagation of the disease, and then to state the more important theories in their relation to the facts:

Fact No. 1.—The disease is a disease of childhood. Over eighty per cent of the cases are under 3 years of age. In the present New York City epidemic, ninety-nine per cent are under 16, eighty-five per cent under 5, and fifteen per cent under 1 year of age.

Fact No. 2.—The disease is characteristically a disease of the summer months, prevailing most extensively in hot, dry weather. The disease, unlike the more typically contagious diseases, does not, as a rule, tend to spread during school months, but occurs usually during the time when the schools are closed.

Fact No. 3.—Infantile paralysis is only slightly contagious. The disease affects but a small proportion of those exposed

to it. Of 2,070 persons known to have been fully exposed to infantile paralysis, only fourteen developed the disease in its paralytic form. In four different schools in each of which occurred a case of infantile paralysis no secondary cases developed. Under ordinary conditions, cases of the disease are taken into the general wards of hospitals without isolation from patients sick from other diseases. As a rule, the incidence of the disease, that is, the proportion of the population coming down in an outbreak of the disease, is not over one person in a thousand or two thousand. In smaller communities the incidence may be greater. In the present epidemic in New York City the incidence is about one to five hundred. This heavy incidence is very probably without a precedent in the history of infantile paralysis.

Fact No. 4.—The disease is characteristically a rural disease, tending to prevail in small towns or cities rather than in large cities, and in rural rather than in urban districts.

Fact No. 5.—The disease shows no selective tendency toward particular social groups, involving alike the rich and the poor, those living in good surroundings, well fed and well clothed, and those living in the tenements, underfed and poorly clad.

Fact No. 6.—The disease is due to a germ. This germ has been obtained from the following sources: (1) From the body and from the secretions of the noses and mouths and intestines of persons dead of the disease. (2) From the secretions of the noses and mouths and intestines of persons sick with the paralytic form of the disease. (3) From the secretions of the noses, mouths, and intestines of persons sick with the nonparalytic form of the disease, that is, the abortive or atypical cases. (4) From the secretions of the noses and mouths of persons

who have recovered from the disease several months previously. (5) From the secretions of the noses and mouths of well persons who have not themselves had the disease in recognizable form, but who have been exposed to persons suffering from the disease. The germ of the disease can be inoculated into monkeys with the effect of reproducing the typical disease in the monkey. It is questionable whether the germ can be inoculated into the monkey without breaking the skin or mucous membrane of the animal. The importance of this statement will later appear. Infected and diseased monkeys placed in cages with other monkeys do not convey the disease to their companions. The germ of the disease is not killed by being dried for a considerable period of time, which is unlike the germs of most diseases in that they die rapidly in the dry state.

Fact No. 7.—The period of time elapsing between exposure to infantile paralysis and the first symptoms of the disease, technically spoken of as the incubation period, is not definitely known. It is usually put down as varying from two to fourteen days, with eight days given as the average. However, we know that in the inoculation experiments on monkeys, thirty-three days was the average time between the inoculation of the monkey and the first symptoms of the disease. In some monkeys nearly two months elapsed before the disease developed. There is one case on record where the monkey was inoculated a year before it developed paralysis. There is now in this State a case that left New York five weeks before the development of the disease. This variation in the period of incubation of the disease is like the variable period of incubation in hydrophobia, which is anywhere from two weeks to two years. In this connection it might be said that the germ, or poison, that produces the disease resembles that of hydrophobia in two respects, namely, that it can be passed through a porcelain filter and that it is not killed by drying

and by being kept in glycerine; furthermore, both diseases affect the nervous system.

Fact No. 8.—The disease appears in two types of cases, the sporadic case and the epidemic case. By sporadic cases we mean cases of the disease that have no traceable connection with an epidemic, and that are rarely ever followed by secondary cases, that is, by other cases. These sporadic cases are always present in the State but are so separated by space and time as to have no demonstrable connection with other cases. Without accurate statistics, and basing our estimate purely upon the number of deaths from infantile paralysis reported for the year 1915, seventeen deaths, we would say that in North Carolina every year there are about 200 sporadic cases of the disease. There is no record of the disease ever having prevailed in North Carolina in epidemic form, by which, of course, we mean the occurrence of a large number of cases closely related in space and time. While there is every reason to suppose that the sporadic case and epidemic case is one and the same disease, this has never been absolutely proved.

Fact No. 9.—So far, there is no proof that the incidence of the disease has been influenced by any measures directed toward its control. For example, the most strenuous fight that has ever been made on infantile paralysis is now on in New York City, and the prevalence of the disease is greater in New York City than at other times and places where very little or practically nothing was done to control its spread.

THEORIES

The Theory of Transmission from Person to Person: This theory, based upon the established fact that the germ occurs in the secretions of the noses and mouths of persons sick with the recognizable paralytic form of the disease, persons sick with the nonparalytic, unrecognizable form of the disease, persons recovering from the disease, persons who have

not had the disease, but who have been exposed to it, assumes that the disease is spread among the people through the distribution of the nasal and oral secretions in exactly the same way that measles, whooping-cough, diphtheria, and scarlet fever are known to be distributed.

We know that the nasal and oral secretions of people are conveyed to others in the following ways: (1) The common drinking cup or dipper: One person uses the dipper or drinking cup and leaves a small amount of saliva on the cup or dipper, which the next person who takes a drink gets into his mouth. (2) Through acts of coughing and sneezing without the use of a handkerchief: It is now positively known that in acts of coughing and sneezing small invisible droplets of the nasal and oral secretions are expelled into the air and float in the air for variable periods of time, for an hour or more, and for variable distances, for twenty or thirty feet. Persons coming into an atmosphere containing infectious droplets breathe them in and become infected. (3) Through dried expectoration: A person spits on the sidewalk or on the floor, the expectoration dries, moving feet and brooms grind the dry expectoration into floating or wind-borne dust, the dust is breathed in, and if infectious it may cause disease.

This theory of transmission of infantile paralysis from person to person has to assume, in order to explain the small number of cases of infantile paralysis in proportion to the population, that but a small number of those who get the germs, that is, those who become infected, are susceptible to the disease. We know it to be a fact that variable degrees of susceptibility to different diseases exist. To illustrate: If a hundred children who have never had measles are thoroughly exposed to measles ninety-nine will have measles; of a hundred children who have never had whooping-cough, but who have been exposed to whooping-cough, ninety will have the disease; of a hundred children who have never had scarlet fever, but who become exposed to scarlet fever,

fifty will have the disease; of a hundred persons who drink water from a typhoid-polluted well, twenty-five will have typhoid fever and seventy-five will escape. In infantile paralysis our theory assumes that the susceptibility of exposures is far less than in any of the above.

This theory explains the lack of ability to control the prevalence of the disease by assuming: First, the existence of many abortive, atypical cases of the disease which are not diagnosed as infantile paralysis on account of the mildness and on account of the absence of the characteristic symptom, paralysis. Second, the existence of a large number of persons infected with the disease but not sick from it, that is, "carriers." The theory assumes, for example, that in New York City where there are at present about 7,000 persons now sick or convalescent from the recognizable form of the disease, and a great many others with the disease so slight in its manifestations as to have escaped recognition, there are from fifty to one hundred thousand carriers, that is, persons who have not had the disease, who are not sick from the disease, but who in some indirect way, usually without knowing, have come in contact with and been infected by a case of the disease. We know that when diphtheria is prevailing epidemically in a town or city that, in addition to those who are suffering from the disease, there are from three to five per cent of the population, as shown by laboratory examination, infected with diphtheria germs. In other words, if in a city of 25,000 population, there occurred in the course of six, eight, or ten weeks a hundred cases of diphtheria, there would be walking the streets of that city from 500 to 1,000 well persons with diphtheria germs in their throats. The "carriers," the persons walking about on the street, in the postoffice, in the street cars, and carrying the germs with them, are the more dangerous infectious agents in the community, and not the persons with the germs who are confined to their room. In diphtheria we can detect "carriers" by a very simple

examination of the throat, but in infantile paralysis we can not detect "carriers," because the detection of a "carrier" depends upon producing the disease in a monkey through the inoculation of the monkey with the throat secretions of the supposed "carrier." Monkeys are not available in sufficient numbers for making wholesale tests for "carriers."

The Weakness of This Theory: First, if infantile paralysis is conveyed like measles, whooping-cough, diphtheria, and scarlet fever, through some form of exchange of the nasal and oral secretions of people, then the disease should occur at the same seasons of the year when the other diseases conveyed in this way prevail, that is to say, during the school months. It is in the school, of all places, especially in the school with the common dipper and open bucket and the school where children are allowed to sneeze and cough into the air without using a handkerchief, that these secretions are exchanged. Second, many cases of infantile paralysis are found in the most isolated rural communities, and the most careful and trustworthy history of these cases go to show that neither the victim nor any other member of the household has been to any place where the disease prevails, and further, that no person coming from any place where the disease prevails has visited such a household. In other words, there are many cases of this disease so isolated that it would seem that the only common bond of communication between such a person and other cases of the disease could be the United States mail. These extremely isolated cases go to suggest that some origin other than contact with another case is necessary in explaining the cause and transmission of this disease. Third, one infected monkey placed in a cage with many uninfected monkeys does not convey the disease to the other monkeys.

The Theory That the Disease Is Carried by Insects: This theory would explain the greater prevalence of the disease during hot weather, also the greater prevalence of the disease in rural districts, as

the insect population is greater in the summer and in the country than in the winter and in the town or city. Dr. Rosenau, of Harvard University, once thought he had transmitted the disease through the stable fly (not the ordinary house fly), but he himself and others have since failed to confirm the experiment on which he made this claim. In the experimental production of the disease in monkeys it does not seem to be sufficient to simply place the germs on an uninjured mucous surface like the throat; an injury, a break in the lining membrane, seems necessary for infection. This is a point in favor of the bite of an insect as the means of transmission.

The Weakness of This Theory: First, it does not explain the occurrence of sporadic cases, by which is meant cases without any traceable connection with any epidemic of the disease. Nor does the insect theory explain the irregular distribution of epidemics. For example, if the epidemic occurrences of the disease in 1908, 1909, 1910, in Minnesota, Nebraska, Iowa, and Kansas were secondary to the epidemic in New York City in 1907, as is generally supposed, how is it that the insect carrier should pass through Chicago to the western epidemics without involving Chicago? In 1910 there was an epidemic in Washington, D. C., and a smaller one in Philadelphia, but Baltimore, between the two cities and on the main route of travel, escaped. Second, the insect theory again fails to hold water in that children almost solely are infected and adults escape, unless we assume that adults are not susceptible and children are. It is interesting to know that in the present New York City epidemic among the 30,000 institutional children living in different institutions in different parts of the city, there is not a single case of the disease; and that on Barren Island, where much of the garbage, many of the dead animals, and other city wastes are carried for incineration, an island separated from the rest of the city with a population of 1,700 people with 200 or 300 children, there is not a

single case of infantile paralysis. It would seem that, with an insect carrier as active as the present epidemic in New York City would indicate, there should be a few cases in some of the institutions and on Barren Island.

The Dust Infection Theory: This theory was suggested by Dr. H. W. Hill, State Epidemiologist of Minnesota, as follows:

"With regard to the relation of dust, and so on; we had a great deal of dust in the beginning of the outbreak (epidemic in Minnesota in 1909), when there was notably hot weather. The corn was actually drying up. A most striking feature in connection with this was in Winona. There were 34 cases which occurred up to the 5th of August. Almost every case had been on unwatered streets. They began to water the hitherto unwatered streets on the 5th of August, and on the 12th of August the last case occurred. There was not another case in Winona, a town of about 20,000 inhabitants, although there were cases in the surrounding country which continued for three or four months after that.

"There was a somewhat similar experience in Eau Claire, Wisconsin. It would seem to me that dust must be a factor in the disease. For that reason, I am rather inclined to think that probably the carriers of this disease may be found amongst the lower animals, because, of course, the only thing we can think of in dust that can be likely to be a serious matter is the excreta of animals, especially of the horse, because the street sweepings and dust in general of the street is about half horse manure. I think fifty per cent of the dust in the streets of a city is horse manure."

As is pointed out above, the germ or virus of the disease will live in the dry state and, therefore, may be capable of conveyance through dust. The prevalence of the disease during hot, dry, dusty weather is corroborative of the dust route of infection. Its more frequent occurrence in the smaller towns and cities and in country districts where highways are unpaved and unwatered, as compared with its less frequent occurrence in larger places that have well-paved, sprinkled streets, is suggestive of dust-borne infection. It seems to be an established fact that the disease did not prevail in epi-

demic proportion much before the year 1880 or 1890, and that the number of epidemics since that time have been steadily increasing. This fact might be made to accord with the dust theory of infection on the ground that a growing civilization with a greater travel creates more dust than we had in former times.

The Weakness of the Dust Theory: Adults do not have the disease in the same proportion as children, and adults are as much or more exposed to dust than children. This fact can be reconciled with the dust theory of infection by assuming, what seems to be certainly the case, that children have a far greater susceptibility to the disease than adults.

The Theory of Animal Infection: The occurrence of paralytic diseases among domestic animals, the dog, cat, chicken, horse, cow, etc., has suggested that infantile paralysis might be a disease common to these domestic animals and human beings, and might, therefore, be contracted from domestic animals. Careful experimental investigations have failed to show any relation between paralytic diseases of these lower animals and infantile paralysis. It is impossible to infect the lower animals with the virus of infantile paralysis taken from either infected monkeys or children; conversely it is impossible to infect monkeys from animals suffering with paralytic diseases. There is no evidence to show any connection between disease of domestic animals and infantile paralysis.

Control

To control the prevalence of this disease we endeavor to break the infectious chain. It would be easy to deal with the disease if it were known to be due to dust, for then frequent sprinkling would serve as an effective agency of control. As we do not know that the disease may not be checked in this way, it is well enough, in epidemics of infantile paralysis, to see that the streets and much used roads are kept damp. While it is not likely that the disease is contracted from domestic animals, it is not only possible, but extremely

probable, that dogs and cats and other pets coming in contact with infected homes and sick children may, through association with other children, serve as a means of distribution of the infection; therefore, dogs, cats, and other pets, should be carefully excluded from infected quarters and infected people. Screening of the sick room is simple and cheap, and should be carried out, for it is possible for flies to serve as mechanical carriers of the poison just as in typhoid fever. If the disease is found to have some unknown animal or insect origin, it would then probably be evident that none of the methods that have been adopted for the control of the disease were in the least effective. If it should be found to be carried by "carriers," and if what seems probable should be found to be true, namely, that the proportion of carriers to the number of victims of the disease is very large, the problem of effective quarantine would be so extremely difficult as to be almost worthless.

For detailed, specific rules and regulations governing the control of infantile paralysis, the reader is referred to Special Bulletin No. 69, which contains the rules and regulations adopted by the Conference of State Health Officers with the United States Public Health Service on August 18, 1916. This bulletin can be obtained from the State Board of Health.

Origin of Epidemics.

Contagious diseases prevail sporadically, endemically, epidemically, and pandemically.

By the sporadic occurrence of disease we mean the occurrence of single cases widely separated by both space and time from other cases and without traceable connection with other cases.

By the endemic occurrence of disease we mean the continuous existence of a few cases in a place. For example, we may say that diphtheria is endemic in New York City, by which we mean the disease is never completely eradicated from the City of New York.

By the epidemic occurrence of disease we mean the occurrence of an unusually large number of cases of disease closely related in time and space and showing a traceable relation to other cases.

By the pandemic occurrence of a disease we mean the rapid invasion of large territories by a disease, the best illustration of which was the pandemic of grip, or influenza, which started in Russia some time about 1890 and in one year traveled around the world.

Explanation of sporadic cases: There are probably two explanations of sporadic cases: A case of scarlet fever or infantile paralysis develops in the country or in a town. There have been no other cases there for months. It is possible that some person who had recovered from scarlet fever or infantile paralysis, or who had never had the disease in recognizable form, but who is a carrier, met the sporadic case at a soda fountain, at the rim of a common drinking cup or dipper, or coughed or sneezed in a street car or postoffice close to the victim of the sporadic disease, and in that way caused the sporadic case. The second explanation of the sporadic case is especially worthy of consideration in connection with infantile paralysis. This explanation would ascribe the sporadic case to a prolonged period of incubation. In discussing the cause of the disease, it was stated that, like hydrophobia, the incubation period, the time between the infection and the occurrence of the disease, was variable, in inoculated monkeys thirty-three days. One suggestive instance was cited in which a monkey had the disease a year after it was inoculated. So many sporadic cases may be cases of infantile paralysis infected at the time of an epidemic, but that come down after exceptionally long periods of incubation.

Explanation for the endemic occurrences of disease: Diseases are only endemic in very large populations and where the disease is highly contagious. It is the smouldering fire, smouldering usually because the susceptible population of a place has been exhausted by an

epidemic preceding the endemic continuance of the disease.

Explanation of epidemics, or how sporadic cases become highly contagious and epidemic: Under artificial conditions in the laboratory we may take a disease germ that has been cultivated or grown outside of an animal, in a test tube for a long time, and if we endeavor to produce disease in an animal by inoculating it with such a degenerated germ, we find that we must use, say, for illustration, ten million germs to kill the animal. Now we find that if we take this germ from the animal which it kills and inoculate it into a second animal that we can kill the second animal, say, for illustration, with a million germs. Again, if we take the germ from the second animal's blood and inoculate a third animal, we can kill it with ten thousand germs; from the third dead animal we can kill a fourth with one thousand germs, and so on, each successive inoculation requiring fewer germs for producing a fatal effect. Such a process of educating a germ to kill, of raising what the laboratory man calls the germ's virulence, may be something like what takes place under natural conditions when a sporadic disease blazes into an epidemic. We will say, for illustration, that the sporadic case happens to be in a child of great susceptibility to the germ; the germ grows easily and vigorously in such a child's body. By some chance happening, a second and a third susceptible person contract the germs, and there is an increase in the disease-producing power of the germs. The germ with increased disease-producing power then affect a large part of those exposed to it, an epidemic resulting.

The explanation of pandemics would be the same as the explanation of epidemics except the disease-producing power of the germ would be still more highly raised.

Parts of Body Affected

There is reason to believe that the germ or poison of this disease passes through the upper part of the nose and throat into the cranium and from there into the

spinal cord, which is directly connected with the cranium, or brain box. It is probably for this reason that many cases of the disease in the early stages are characterized by a certain amount of cold, that is, inflammation of the nose. The poison or germ, on reaching the spinal cord, causes an inflammation of the front part of the cord, usually the front part of the lower end of the cord. The germ, however, may cause an inflammation of any part of the central nervous system, the brain or the cord or both. The part of the cord involved in the disease process is that part that has to do with movement of the muscles, and of course when this part is destroyed motion is lost, paralysis ensues. The part of the body paralyzed most frequently is shown in the following table, which is based upon 560 cases:

One lower extremity	229 cases
Both lower extremities	176 cases
General paralysis all extremities, and more or less of trunk	79 cases
One lower and one upper extremity	36 cases
Both lower extremities and one upper extremity	16 cases
One upper extremity alone	14 cases
Both upper extremities	2 cases
All other varieties	8 cases

Symptoms of Infantile Paralysis

In this disease there are two sets of symptoms which occur either separately or in varying combination. In one set there are those symptoms characteristic of an invasion of the body by disease-producing germs. In the other set there are symptoms indicative of an injury to the central nervous system, more especially an injury of the spinal cord.

Symptoms of germ invasion are chilly feelings, of a distinct chill, fretfulness, irritability, headache, fever from 100 to 104, increased pulse rate, loss of appetite, sometimes vomiting, usually constipation, and, in some epidemics, a little cold or sore throat, indicating the point of entrance of the germs into the body. Occasionally there are muscular twitchings or even convulsions.

The symptoms indicating an injury to the spinal cord, and associated with the above symptoms of infection, are pain in the back, especially marked in the calves of the legs and the nape of the neck. Bending of the body forward, flexing the head on the neck or the thigh on the body intensify the pain which is resisted by the child. Usually within from one to three or four days after the onset of the symptoms, paralysis of some part of the body, as indicated in the foregoing table, is observed, or, perhaps we had better say, may be observed.

This brings us to a consideration of what is known as the abortive or atypical cases, by which we mean cases of infantile paralysis in which there is no paralysis, paradoxical as this may sound. These cases of the disease characterized by the symptoms of germ invasion only—and these symptoms may be very slight, barely noticeable in many cases—are not recognized as cases of infantile paralysis except in epidemics and under suggestive associations. For example, one child in a family has the typical combination of symptoms with paralysis of one leg; another child in the same family has a little cold, a little elevation of temperature, some chilly feelings, loss of appetite; maybe it vomits once or twice and has a little pain in the back. These symptoms pass away in a day or two. A third child in the same family is merely indisposed for a day, does not care about playing, lies about on the lounge. These last two children, with no paralytic involvement and not associated with another case of paralysis in the family, would never be suspected under ordinary circumstances of having infantile paralysis. Nevertheless, inoculation experiments have shown that such abortive cases as we have described are true cases of infantile paralysis. The important point in this connection is that in every epidemic of infantile paralysis there are a large number of abortive and atypical cases of the disease, cases without paralysis, cases with mild symptoms, many with symptoms so mild as not to be recognized as being sick at all. Such per-

sons do not themselves suspect the nature of their trouble, no physician ever sees them, they are not reported for quarantine, and usually serve as one of the most important sources of an epidemic.

Another interesting type of the disease is the paralytic case with only a few or with unnoticeable symptoms of germ invasion. A case something like this: A child three years old is a little bit fretful in the afternoon, doesn't have much appetite for supper. The next morning, when the child is being dressed, it is noticed that one arm or one leg is weak or limp.

Treatment for Infantile Paralysis

Call in your family physician as soon as you have reasonable grounds to suspect the presence of the disease and leave the treatment to him.

ADVICE ON THE USE OF PATENT MEDICINES

For weak lungs—Purchase a nice chamois-lined chest protector. Put it on your pet poodle dog, and take ten deep inspirations (breaths) slowly before an open window each morning. Retire to a warm bath room and take a cold sponge above the waist line. This do daily.

For constipation—Take three or four of Dr. Patent Medicine's Pink Pills. Roll each pill around the block, using your hand as propeller. Drink one pint of cold water before breakfast and at bedtime. Eat with regularity less meat and more vegetables. Wash your teeth with a tooth-brush. Don't forget to thoroughly masticate your food.

For dyspepsia—Procure a box of Charcoal Dyspepsia Tablets. Put them in your flower pot. Charcoal is good for house plants. Go to your dentist and have your teeth cleaned and filled. Avoid anger. If fatigued, rest before eating. Select a good, wholesome diet, avoiding condiments and spices. Avoid midnight lunches, consisting principally of salads and coffee.

WHERE TYPHOID SPREADS

There is probably no communicable disease in this country the spread of which we know with as much certainty as typhoid fever. The manner in which it spreads or the way by which it reaches human beings is a sordid story. So filthy are the facts, as well as the factors, in the spread of typhoid fever, that for this reason it has been called the "national disgrace."

The plain facts about its spread are these: The germs are found only in

open-back privies, stables, garbage cans, etc., to unscreened kitchens, dining rooms, and dairies. They infect food and drink with typhoid germs, causing unsuspecting human beings to contract the disease. Personal uncleanliness, particularly of the hands, is another means of spreading the disease.

The accompanying picture shows plainly the surroundings conducive to typhoid—an open fly-exposed privy and barn, unscreened kitchen and dairy, and fly-infected food and drink. The



HOW WE GET TYPHOID.

the discharges of the human body, either in the excreta or urine; these have to be swallowed, usually in water, milk, or with other food, before a human being can have typhoid; the three principal factors in the spread of typhoid are filth, fingers, and flies; and the control of typhoid fever is practically the control of these three factors.

Filth contains the germs of typhoid, and is carried to food and drink mainly by fingers and flies. Flies go from

flies go directly from the stables, the privy, and the dog to the cakes and pies on the table. Such conditions, besides being disgustingly filthy, are an open door to disease and death.

Screen the doors and windows of the house and milk room, protect the well and make the privy fly-proof by building it fly-tight down to the ground and placing it over a pit two or three feet deep by two or three feet square, and have it at least two hundred feet from the well.



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Moving Picture Health Car

The State Board of Health has fully equipped this car with a powerful electric lighting plant, motion picture machine and accessories, together with a large selection of health and comic films, all of which is in charge of a competent lecturer and machinist. Would you have this car come to your county, give moving picture health entertainments in a dozen or more places, and wage a vigorous educational health campaign for from three to six weeks? Read pages 20 to 23, inclusive.

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FREE PUBLIC HEALTH LITERATURE

The State Board of Health has a limited quantity of health literature on the subjects listed below, which will be sent out, free of charge, to any citizen of the State as long as the supply lasts. If you care for any of this literature, or want some sent to a friend, just write to the State Board of Health, at Raleigh. A postcard will bring it by return mail.

No. 12. Residential Sewage Disposal Plants.	No. 74. Scarlet Fever.
No. 31. Whooping Cough.	No. 75. Baby Welfare.
No. 32. Diphtheria.	No. 76. Save the Baby.
No. 39. Tuberculosis Leaflet.	The Child.*
No. 41. Tuberculosis.	Teeth, Tonsils, and Adenoids.*
No. 42. Malaria.	How to Live Long.*
No. 47. Privy Leaflet.	Hookworm Disease.*
No. 50. Baby Leaflet.	First Aid in the Home.*
No. 52. Malaria and What Everybody Should Know About It.	The Health of the Worker.*
No. 53. Disinfection After Diphtheria, Measles, or Whooping Cough.	Smallpox and Its Prevention.*
No. 54. Disinfection After Scarlet Fever.	A War on Consumption.*
No. 57. Health Helps for Teachers.	Milk.*
No. 58. Fly Leaflet.	Some Facts About Scarlet Fever.*
No. 59. Typhoid Fever Leaflet.	A Few Facts About Measles.*
Sanitary and Hygienic Care of Prisoners.	Typhoid Fever and How to Prevent It.*
No. 60. Cancer Leaflet.	How to Build a Sleeping Porch.*
No. 61. How to Nurse a Tuberculous Patient.	Dental Lectures.†
No. 63. Health Catechism.	Dental Hygiene.†
No. 67. Adenoids.	Anti-Spitting Placards (5 inches by 7 inches).
No. 70. Tuberculosis.	Anti-Fly Placards (14 inches by 22 inches).
No. 71. Pellagra.	Anti-Typhoid Placards (14 inches by 22 inches).
No. 72. Smallpox.	Anti-Tuberculosis Placards (14 inches by 22 inches).
No. 73. Measles.	

*Furnished by courtesy of the Metropolitan Life Insurance Company.

†Furnished by courtesy of Colgate & Company.

THE Health Bulletin



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No. 2

ASHEVILLE PUTS FIRST THINGS FIRST

Gives Public Health First Place of Importance in Municipal Government

HFINE example of the thoroughness and efficiency of Asheville's Health Department is her present campaign for the absolute elimination of the surface closet. At the present time Asheville has only about three hundred such closets. This number is being gradually reduced by the laying of new sewers, and it will be reduced to two hundred by June, and by midsummer there will not remain one such closet in Asheville. This is being done through the ordinary financial channels, assessing the cost of such new sewers against the property. Asheville forces all property without delay or discrimination to connect with the sewers as soon as they are ready. If for any reason the owner is not able to install closets and connect with the sewer, the city does this, charging it as a lien against the property and permitting the property owner to repay in monthly installments. All surface closets are cleaned weekly by the city.

No one can conduct the business of washerwoman in the city of Asheville without a permit from the Department of Health. The homes of the washerwomen are inspected and graded.

Asheville has learned to place the proper relative estimate upon her governmental activities, and has had the wisdom to recognize that the public health is of the first importance. Asheville has also learned that the living conditions of a city are of the first

consideration, and the position which she occupies as the best governed city in North Carolina is due largely to the fact that her ideal of municipal government and progress is expressed in terms of public health and social soundness; physical well-being and right living; a wholesome atmosphere, physical and moral; a civic conscience, concerned with every part of the community life. In other words, Asheville puts first things first.—A. W. McAlister.

ANOTHER KNOCK-OUT

In former times whiskey was regarded as the only remedy for snake-bite and a bad cold. As pneumonia was commonly regarded as the out-crop of a bad cold, whiskey was likewise regarded as the sovereign remedy for pneumonia. But the doctors are shelving liquor even for the treatment of this more serious form of the bad cold. The United States Public Health Service is sending out bulletins intended to safeguard the people in this season of pneumonia, and the bulletin contains information of a valuable kind. A list of causes contributing to pneumonia is given, and alcohol is specified as one of the most important contributing agencies. It is stated that alcohol is indeed the handmaiden of pneumonia and there is none more sure or certain of success, especially if liberally and continuously used. The old snake-bite remedy is being knocked out everywhere, and it is well that North Carolina is even fairly weaned from thoughts of it.—Charlotte Observer.



PUBLIC HEALTH AND SANITATION



TEACHING HEALTH BY MOTION PICTURES

How Public Health is Being Taught in Rural Districts by Means of Trav- eling Motion Pictures

WARREN H. BOOKER, C. E.

Chief of the Bureau of Engineering and Education.

CIRCUS day in the city is getting to be a scarcely more important event than Motion Picture Health Day at the country cross-roads. Yes, real genuine motion pictures. Not stereopticon lantern slides nor magic lantern pictures, nor a gas-lighted lantern, but a fully equipped portable motion picture machine of the very latest type with a powerful electric lighting plant which travels about from place to place in a large automobile giving intensely interesting presentations of the health problem by means of motion pictures.

Yes, there are comic films, too. Just as all work and no play is a bad thing, so all health and no comic films would not make a good program.

It usually takes about twenty to thirty minutes after arriving at a schoolhouse, church, or hall to set the motion picture machine up, hang the curtain or screen, and run the cable from the electric lighting plant, which ordinarily remains stationary in the car, through a door or window to the motion picture machine in the hall. When an entertainment is given in the daytime, it usually takes a few minutes longer to darken the windows by means of black curtains. In the evenings in warm weather the entertainments are frequently given out of doors in the open air.

Special provisions are made for lighting the schoolhouse, church, or hall, as the case may be, by means of strings of incandescent lights operated at will by the lecturer from the switchboard of the machine.

Besides the regular motion pictures, a Victrola is carried along to provide a preliminary musical program while the audience is gathering, as well as to furnish appropriate music while the comic films are running. While the health films are on the screen, the lecturer in charge delivers a running lecture, as it were, at suitable times and places throughout the pictures.

After each entertainment comes one of the most valuable features of this work, the distribution of free health literature. During the entertainment an exhibit of free health literature is provided in the hallway or some convenient place nearby. After seeing motion pictures dealing with typhoid fever, tuberculosis, care of the teeth, malaria, mosquitoes, flies, care and feeding of babies, and other health subjects, many persons in every audience become very much interested, and want to learn still more about such things. For such, and for such only, is provided a limited quantity of free health literature by this Board, together with other literature so generously provided for the occasion by the Metropolitan Life Insurance Company and the Colgate Company.

This outfit does not have to travel out from cities and towns having hotels as a base of supplies, nor do the lecturer and machinist thrust themselves upon the charity, generosity, or kindheartedness of the good people in whose community they are working

for their board and room. Complete camping, cooking, and sleeping outfit are carried along as a part of the regular equipment. The accompanying cut shows the outfit about to break camp in the morning. The simple yet strenuous outdoor life with plenty of exercise and all its fresh air are exemplified by these apostles of good health by example no less than by precept.

By means of the car, two places can be visited a day, and motion picture

are used as announcements and occasionally to supplement the teachings of the health films. As a rule, a good evening's entertainment is found to consist of from five to six reels of pictures, lasting from sixteen to twenty minutes each. Ordinarily, a program consists of a good scenic, comic, or western film, followed by three health films and concluded with a comedy. The Board has a sufficient number of films to give at least three complete programs, and the usual plan is to go



IN CAMP

A complete camping outfit renders the lecturer and machinist independent of hotels and boarding-houses

health entertainments given at least twelve points a week. Occasionally in large places these entertainments are repeated one or more times at a place, depending upon the population present and the size of the hall. During the country fair season the outfit is supplemented with a large tent, seating three hundred or more people, and a continuous entertainment is carried on as a free attraction of the fair during the entire fair period.

Just a few lantern slides are used in connection with the work, and these

to a county and give substantially the same program at twelve different places and then return to each of these same twelve places one week later with a complete change of program, and again two weeks later with another complete change of program.

No rental charge is made by this Board for the use of the outfit. It is loaned free of charge to any county in the State having reasonably good roads. For the present the only requirements to secure a three-weeks health campaign in a county are, first,

to provide at least \$90 to pay for the first week's operating expenses, so that the first series of health entertainments can be given free, and, second, to select twelve or more advantageously located points where such motion picture health entertainments can be given, and, third, to coöperate with this Board in a thorough preliminary advertising campaign throughout the county.

either by subscription or otherwise, making admission to the entertainments free, or they may charge an admission fee. This Board discourages the admission fee idea, and encourages counties and communities to make these entertainments free to the public wherever possible, for two reasons: first, because by charging even a small admission fee a certain class of people will remain away, and as a



ENJOYING THE "HEALTH MOVIES"

Part of the audience at a typical Motion Picture Health Entertainment

In regard to providing the operating expenses for the second and third weeks, this is usually done in one of two different ways. First, instead of providing only \$90 for one week, as many weeks may be provided for at that rate as may be desired; or, second, the various communities in which the first week's entertainments are given may be counted upon to provide their share of the necessary operating expenses for the return engagements,

rule this is the very class of people that need such instruction most; and, in the second place, by charging an admission fee more money is taken away from the community than is asked for.

In any county where provision is made to meet only the first week's operating expenses, this Board will be perfectly willing to assume the responsibility for carrying on the work during the second and third weeks.

The quality of these entertainments has invariably been found to be such as to commend them sufficiently to cause those seeing the first entertainment to ask that it return again and again.

In regard to providing the necessary operating expenses of \$90 for the first week to secure the outfit, this may be done in any one of a number of ways. It has been done in one county by a single philanthropic individual, in another by one man armed with a subscription list; in another by the county board of education, and in another by the county board of commissioners. Where any or all of these methods fail, ingenious public-minded persons will doubtless work out other methods of securing the necessary \$90 for the first week's work, after which, if it is desired, this Board will be responsible for the second and third week's campaign.

This Board will be glad to answer by correspondence any questions in regard to further details of this work.

HOOKWORM DISEASE

Its Cause, Cure, and Prevention

HOOKWORM is one of the most common diseases in North Carolina. Ordinarily it does not manifest itself in any startling or spectacular manner, like smallpox or toothache, but gradually reduces the strength, vitality, and efficiency of the unsuspecting victim and makes him subject to many other more serious ailments and diseases. Its victims are usually children and young people. It is estimated that about one-third of our school children and about one-fifth of our adults are afflicted with this disease. The reason for this difference is that children more than older people as a rule go barefooted in summer, and it is by going barefooted more than any other way that hookworm disease is contracted.

Hookworms are tiny, round, intestinal worms about a half an inch in length and about the size of an ordinary No. 30 or No. 40 cotton sewing thread. These little worms have hooked or bill-shaped mouths by means of which they hook or attach themselves to the inside of the intestines, hence the name, hookworms. In this position they suck blood from the intestines, cause them to bleed, and inject small amounts of poison into the sores or wounds they make. While thus attached to the intestines the female hookworms deposit large numbers of tiny eggs. These eggs are so small that they can be seen only with a microscope. They do not hatch in the intestines, but are carried on out of the body and deposited with the fecal matter at every bowel movement of the victim. Under proper conditions of heat, moisture, and air these hookworm eggs hatch out into tiny maggots. Now, should a barefoot person soil his foot with some of this fecal matter or nearby polluted soil, these tiny worms would at once begin to burrow into the skin and set up what is commonly known as "ground-itch" or "dew-itch." Once these tiny hookworms get into the skin they are taken up by the blood and finally find their way to the intestines. Here they attach themselves to the walls of the intestines like their parents and begin sucking blood and developing into adult hookworms. In about two months after the case of "ground-itch" or "dew-itch" the infected person begins passing hookworm eggs with every bowel movement.

Country schools without sanitary privies are probably the most common sources for the spread of hookworm disease. At such schools the boys are usually required to retire to the woods in one direction from the schoolhouse and the girls in another. By such means one hookworm infected family may very readily expose the entire school to infection.

The Damage From Hookworm Disease

The damage done by hookworm disease depends upon the severity and frequency of the infection. A slight infection decreases the victim's strength and vitality only slightly. A heavy infection or repeated infections do a much greater harm. People thus infected cannot keep up with their companions either in work or in play, and are frequently abused and ridiculed and called "lazy," when they are simply exhausted because hookworms are sapping their strength. Such people deserve sympathy and help instead of ridicule.

People whose strength and vitality are lowered for whatever reason are more disposed to contract other diseases, such as colds, pneumonia, tuberculosis, typhoid, and others. While hookworms rarely kill people directly, they so weaken them that other diseases which a healthy person would ordinarily ward off prove fatal to the hookworm victim.

In the case of little children, hookworms frequently stunt their growth so that they are unable to keep up with their school work. Finally they become so languid and discouraged that they give up school work in despair.

How to Recognize Hookworm Disease

Besides the characteristic symptoms and effects of hookworms already described, the disease is usually recognizable to physicians or laymen by the anemic, pale, run-down condition and bloodless appearance of the victim, particularly if he admits having had "ground-itch" or "dew-itch" within the past few years or has been in the habit of going barefooted during the summer time. In other cases, slow-healing ulcers persist; the hair is dry and scant, especially the beard and that in the arm-pits; the face and ankles are often swollen, and the abdomen is prominent, giving rise to the term "pot-belly." In severe cases the ap-

petite may often be perverted and the victim will eat coffee grounds, soot, clay, etc., hence the term "dirt-eaters."

The presence of hookworm disease may be definitely known by sending a specimen of the morning bowel action to the county health officer or to the State Laboratory of Hygiene at Raleigh, where a microscopic examination for hookworm eggs will be made, free of charge, provided that the specimen is properly marked with the patient's name and sent in a tight tin box. Another way of diagnosing the disease is to take the simple treatment described below and look for the hookworms which, if present, may be found by carefully washing and straining the resulting bowel action through cheese cloth.

Hookworm Disease is Easy to Prevent

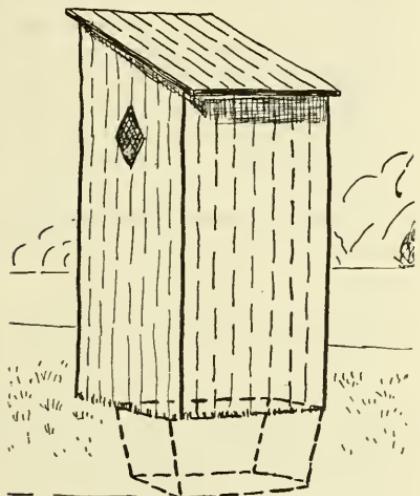
In order to prevent hookworm disease everybody should wear shoes the year round. Everybody should use sewers or sanitary privies, which would not only protect against hookworm disease, but also against typhoid, cholera, dysentery, and summer complaint among babies; and every person infected with hookworms should take the treatment for the disease.

A Good Privy

Of course the best thing for the individual who has hookworm disease is to be cured—the sooner the better—and the best thing for those who wish to guard against the disease is to wear shoes, but the most far-reaching general health precaution is to build good privies.

Perhaps the simplest and best type of privy for the money is the so-called "pit type." It consists of a substantial fly-proof privy weatherboarded tight down to the sills all around, and is set over a small pit or hole in the ground. This pit should be from two to four or five feet deep by two or three feet square. Almost any convenient size or shape of pit that can be covered by the privy will do. Special care

should be taken to see that the privy sits down close all around and, as a further precaution, earth should be banked up around the edge of the privy so as to make it absolutely dark and fly proof. A flap door should fit down over the hole in the seat. In the course of a few years, if the pit is found to be filling up, a new pit should be dug near by and the privy moved over it, using the earth from the new pit to fill up the old pit and to bank



PIT PRIVY

A good, cheap type of privy for rural use. Note it is well built close down to the ground all round, which excludes flies from the pit. The pit may be 2 or 3 feet square by 3 or 4 feet deep.

around the lower edges of the privy. Such privies should be located at least one hundred yards from any well or spring and on lower ground, so that the drainage is in no case toward a well or spring.

Hookworm Disease Easily Cured

Besides being easily prevented, hookworm disease is also easily cured. The treatment is usually given as follows: Eat little or no supper in the evening and take a good dose of Epsom salts before retiring. As soon as the bowels have acted in the morning, take half the quantity of powdered thymol prescribed with a little water, and lie

on the right side for half an hour to allow the thymol to quickly pass out of the stomach into the intestines. Two hours later take the remainder of the thymol and again lie on the right side. This thymol will cause the hookworms to loosen their hold on the intestines. Two hours after taking the second half of the thymol, take another dose of Epsom salts together with a cup of hot, strong coffee without sugar or cream. This will expel the hookworms and the thymol remaining in the intestines.

In the majority of cases two treatments like the above, taken a week apart, are necessary to expel all the worms. The total amount of thymol given at a treatment should depend upon the size and weight of the patient. In general, about one grain is given for every three pounds of weight of the patient. Thus, a sixty-pound patient would be given twenty grains in two doses of ten grains each. Special care should be taken by the patient not to eat or drink any alcoholic drinks, patent medicines containing alcohol, gravy, butter, milk, fat or oily foods during the day of the treatment and the day before, as such substances are dangerous in combination with thymol.

WHY IS A TONSIL?

Modern medical science has proved that the tonsils are the cause of many grave disorders. When diseased they may cause not only bad breath, sore throat and deafness, but many serious affections commonly known as rheumatism, neuralgia, pleurisy, infection of the lungs, tuberculosis, appendicitis, ulcer of the stomach, heart disease, kidney affections. These throat glands are the frequent open doors to germ invasions whose poisons may produce hardening of the arteries. Better slaughter a hundred innocent-looking tonsils than run the risk of sickness and premature death by harboring one that is guilty.

PERSONAL HYGIENE



SPITTING UNNECESSARY

Spitting is a thoroughly unnatural performance and indicates an abnormal condition. No animal spits, save rarely to defend itself against or show its disgust for an enemy, and it is, therefore, a most undeserved libel upon the animal creation to call a man a beast for expectorating.

Saliva is valuable—so valuable, in fact, that it cannot be bought for love or money, as a product of any laboratory in the land. Besides, its use in digestion (if we take time to make use of it), serves as a constant cleanser of the mouth, and if we lived healthfully otherwise, would serve to keep our teeth in perfect condition. The body never produces it in wasteful amount save to counteract and wash away some harmful substance introduced into the mouth.

The most frequent cause of irritation to the mouth and throat, and therefore the most frequent cause of spitting, is tobacco. Chewing of the weed is a little out of fashion at present, and there is less expectoration in consequence, but the smoke from tobacco is also an irritant, and an over-production of saliva follows in Nature's effort to soothe and cleanse the delicate tissues. From its constant use a chronic irritation of the throat is also produced, accompanied by an oversecretion of mucus to protect the injured surfaces. We must either swallow this excess or discharge it from the mouth.

The spitting which accompanies a cough may be a more serious matter for all concerned. The material coughed up should never be swallowed, and expectoration is, therefore, unavoidable for the welfare of the cougher. For the welfare of others it is necessary that the sputum should be deposited in a receptacle which can be burned.—James F. Rogers, M.D., in *Physical Culture*.

GUARD YOUR HEALTH BY WATCHING YOUR KIDNEYS

Over 600,000 people in the United States die annually from preventable diseases through ignorance or neglect of ordinary precautionary measures. This is due in a very large measure to the sedentary life led by such a large proportion of our business men. They overexercise their brain, underexercise their bodies—eat and drink too often and too much—burn the candle at both ends, and in many needless ways bend and break the laws of health, the observance of which would prolong and make profitable the lives of a vast army which man pushes on to destruction.

In this day of advanced scientific medical knowledge and research, it is possible for one to keep close tab on one's physical condition, and the wise and prudent man (or woman) will now at fairly regular and not infrequent intervals submit himself for a physical examination or arrange for some satisfactory inspection that will evidence the normal and abnormal status of his

physical machine, and not wait until an evident loss of energy and vitality warns him that some one of his vital organs is not doing its work thoroughly and well.

Dr. G. A. DeSanto's Saxe, a leading authority, says: "The urine offers the greatest possibility for an insight into the workings of the human system."

Dr. Purdy, another high authority, says: "Through urinalysis alone can an almost daily increasing number of diseases be determined, their intensity be gauged, their progress towards recovery or tendency towards a fatal termination be predicted. No serious disease can be in progress without giving rise to more or less marked changes in the character of the urine."

Dr. Lukins says: "The condition of the urine reflects the health or ill health to a greater extent than any other organ in the body."

Dr. William A. Evans, former Health Commissioner of Chicago, than whom there is no greater authority on preventive medicine, says: "In my judgment, the plan of periodic examinations of the urine will prove of great value."

Diabetes, Bright's disease and its many complications, such as hardening of the arteries, uremia, various heart diseases and diseases of the bladder, are first usually detected by systematic and periodic analyses of the urine.

According to the United States census report, there are over 130,000 deaths in this country annually from diabetes and Bright's disease alone, and all authorities agree that a great majority of these could be prevented or postponed for years if the impairment were detected in time—that is, in their early stages.

Most forms of kidney diseases can be cured if recognized and treated in their early stages.

No period of life renders one immune from diabetes or Bright's disease.

Bright's disease, especially, yields readily to treatment if discovered in

its earlier stages. A thorough and complete microscopical and chemical analysis of the urine—and this only—will determine positively either the existence or nonexistence of this dread disease.

The wise man of the future will recognize the wisdom of keeping correct tab on his physical as well as financial condition. He will recognize the fallacy and danger of drifting along in fancied security and will at regular and stated times take stock of his physical resources.

"MAKE HEALTH CATCHING"

It was said by Ingersoll that he could have made a better world than this by making health catching instead of disease. If we learn to obey hygienic laws there will be no catching diseases, and health will spread and prevail everywhere. This world was meant to be better than it is, and it is only our ignorance, indolence and perversity that prevent it.

While no means of improvement should be neglected, the largest and surest returns will be secured by dealing with the children. Teach them hygiene and sanitation from infancy up. Inhibit child labor everywhere and enforce the law. Let there be medical inspection of the schools, securing ventilation and providing for the correction of malformations, bad teeth, defective eyesight and for regular physical training. Insist on an adequate playground for every schoolhouse, and for the best, most useful development of the child, both intellectual and physical, combine manual and mental training. With these methods universally carried out for a generation many present-day problems will vanish.—Cincinnati Enquirer.

The death rate among children under five years old, if allowed to prevail among hogs and cattle would financially ruin the breeder.

THE PACE THAT KILLS

Rational Living Recommended as a Medicine Worth Trying

DOCTORS have told us often in late years that our pace is too fast—that we are living not wisely but too well. Insurance companies, from motives that are entirely obvious, are urging reform; lately they have united in an effort to find out precisely what is wrong with our manner of living and to provide a remedy.

To that end, the Life Extension Bureau of New York, through Dr. Lyman Fisk, medical director, has been making an investigation. A group of 1,000 skilled mechanics was examined and later another group of 1,000 clerks. The object, of course, was to compare the health of men who live active lives with the general health of men whose business is of sedentary character.

It was found, according to word from the Doctor, that the mechanics, as a whole, were little, if any, better off than the clerks. The active workers presented fewer cases of heart disease, but more cases of thickened arteries. Bad blood pressure was slightly more prevalent among the clerks than among the factory employees, but the latter showed twice as many cases of kidney trouble as the former. They had more lung impairment, too. More than half the members of the groups were partaking daily of unsuitable diet. Doctor Fisk says further about the results:

"I feel justified in asserting that the evidence of widespread premature physical decay, which is suggested by our vital statistics, is to a considerable degree confirmed by actual examination of large groups of supposedly healthy young people. Thousands of people are slowly and inevitably preparing for physical breakdown or premature death, and there can be no more important work for modern med-

icine than to bring such cases, as early as possible under proper hygienic or medical guidance."

And, he adds, "That there is some particular influence at work causing the upward trend in mortality from organic diseases, seems probable. It may be found in our rapid industrial and social evolution, bringing about a condition of widespread prosperity and lavish expenditure—this relatively extending to the comparatively small wage-earner in the factory."

This is not saying much that is helpful. It is too vague to be of appreciable service. But it does prescribe simpler and more rational living, and that surely is a medicine worth trying.—The Dodge Idea.

The United States is at the present time spending more than thirty-three million dollars yearly for the cure and care of patients afflicted with mental disease, and comparatively nothing for prevention. And yet the perusal of the report of almost any state hospital will show that in about 50 per cent of the cases admitted the mental disorder is due directly to definite causes which are clearly preventable. From 5 to 10 per cent more are functional disorders which probably could have been prevented by early treatment.—Eva Charlotte Reid, M. D., After-Care Physician for California State Hospital.

In the entire realm of preventive medicine, there is no factor more potent than early diagnosis, first, because disease is far more amenable to treatment in the early stages, and second, because early diagnosis affords greater advantages in preventing the spread of infection to others.

Spasmodic cleanliness is better than no cleanliness at all. But it is cleanliness all the time that makes most for health, happiness, and freedom from disease.

IT COSTS LITTLE TO LIVE A HEALTHY LIFE

Some people think they cannot live healthy lives unless they are rich. This is wrong. It is true that rich people can do some things for their health that others cannot, but many rich people live unhealthy lives because they buy things which are not good for them. You may not be able to have the kind of house you would like to live in. You may not be able to work in the factory or store you would like. You may not be able to do the kind of work you would like best, but you CAN make all these things healthier.

You can keep more windows open in your home; you can often get the "boss" to keep more windows open in the factory or store; you may be able to move further out of the city where it costs no more to live; you may be able to get another job.

Even if you cannot do these things, you can do others that cost nothing. It costs you nothing to have your windows open while you sleep. It costs you nothing to take breathing exercises or to stand, sit and walk erect. It costs you nothing to have your bowels move thoroughly and often.

Almost all of us can take enough time to eat our meals slowly. The foods that make us most healthy are often the cheapest foods. Expensive foods like meats are apt to be less healthful.

Remember that we can enjoy cheap food and grow healthy from eating it. Here is the list of foods in which the cheapest are given first and the dearest last: Glucose, corn meal, wheat flour, oatmeal, sugar, salt pork, rice, wheat bread, oleomargarine, beans, peas, potatoes, butter, milk, cheese, beef stew, ham, mutton chops, beef, eggs, oysters.—Irving Fisher.

Keep up the fresh-air habit and the cold bath this winter.

WHEN PERUNA WAS AT ITS BEST

Illustrating how a person may very innocently become an alcohol addict, the editor of one of our medical journals tells the following:

One of the most serious cases of hob-nail liver that the writer has ever seen was a victim of Peruna in the days when Peruna contained at least 40 per cent of alcohol; the case was that of a woman—a temperance worker of considerable prominence. She had taken Peruna for a number of years, in ever increasing doses; she was a chronic alcoholic; but due to her work for temperance, her symptoms were wholly misunderstood by her family and friends. She finally died of chronic alcoholism, yet no drop of alcoholic beverage, with the exception of Peruna, ever passed her lips. Post-mortem examination revealed the real cause of her death which had been obscure and which had puzzled the medical staff of one of the largest hospitals, in which she spent the last few days of her life. This was a plain case of ignorance which led to the patent medicine habit being established in the first place and continued to the end.—Exchange.

TAXES AND TANGLEFOOT

The cattle ticks have been eradicated in Edgecombe, and I understand the National and State governments are at our service if a hog has cholera. Is not the health of the average citizen of the town and county of as much value as a "bull yearling" or a razor-back shoat? Why not get a health officer who is an expert on sanitation? Give him authority and let him be such a man as will enforce his regulations. If every person in Edgecombe was taxed ten cents—hang expense, make it a quarter—such a person, with an assistant, could be procured. I have paid already my quota for many years in "tanglefoot."—A Writer in Tarboro Southerner.



CHILD HYGIENE



FOR THE MENTAL HEALTH OF CHILDREN

The following brief suggestions are regarded by experts as among those essential in promoting the mental health of children.

Give your child opportunity for a variety of wholesome activities and interests.

Train your child to work hard in some regular occupation suited to his ability and talents; but to avoid fatigue by alternation of work and rest.

Train your child to give attention to the present situation.

Train your child to strict obedience in a few important matters and let him alone in regard to the unimportant things.

Avoid conditions that tend to produce overstrain or precocity. The special business of a young child is to grow and to play with other children.

Give your child a variety of well cooked, wholesome food in ample quantity at regular intervals.

Train your child to healthful habits of sleep in fresh air, giving opportunity for at least nine hours, and for more than that before the age of twelve.

If your child becomes worried or sleepless, or has muscular twitchings or the like, consult a competent physician at once.

Take advice of a competent person concerning the peculiar, sensitive, or nervous child, in order to correct a possibly bad inheritance by proper education and environment.

The best method of training is by example.

INFANT MORTALITY

There are two thousand North Carolina babies—one out of every five born in the State—that die annually under one year of age. This is lamentable. And some of this mortality is due to conditions that should be bettered rather than to a merciful Providence who is often incorrectly, though submissively, credited with the untimely death of the little ones. Undoubtedly there is many a Rachel among us, weeping for her children, whose arms should never have been robbed and whose tears should never have been shed.—Biblical Recorder.

“BABY” JONES.

“I want my given name on the certified copy of my birth record, not ‘Baby,’” wrote an indignant young lady who lived out of town and who had sent fifty cents for a certified copy of her birth certificate which she returned with her letter.

She was informed that the certificate mailed her was an exact copy of the original on file in the Bureau of Vital Statistics, in which she was designated as “Baby” Jones. As she has grown to womanhood she naturally desired to substitute her real name for “Baby.” Very much depended upon this in the young lady’s interest, which cannot now be corrected.

Fortunately, this condition has changed. Doctors and midwives, as well as parents, have learned to appreciate the importance of putting the full name of the infant on the original birth certificate, but occasionally we still get certificates without the given name. In case of twins this is espe-

cially important as to which is first born, and the only way this can be decided is by the given name.

Few people recognize the importance of complete birth certificates, and unfortunately those who must suffer as a result of such inaccurate certificates are the infants, after they have grown to adult life. With death certificates it sometimes happens that the deceased was the only person who could have given certain required data; but there is absolutely no excuse for any missing data on birth certificates.—Buffalo Sanitary Bulletin.

MEDICAL INSPECTION OF SCHOOLS

Medical inspection of schools is a new project in North Carolina. It has been taken up by a few of the counties as an experiment and has proven such a success that funds have been appropriated for the continuance of the work. Too much importance cannot be laid upon the benefits that this work can produce. It is a vital matter to every community to see that its school children are in good health. Under the plan of work which Alamance and Northhampton counties have adopted, inspection of the schools is made at regular periods and advice given wherever needed. In this way each child is kept in good health and the danger from any epidemic of disease is practically eliminated.—Washington News.

DRINK MORE WATER

It is a sad reflection upon human nature that the hard-attained is most appreciated and pursued. "I send you to a spring across the street," said a German physician to an American whom he had recommended to a water resort back in America near the latter's home, "and you drink, maybe, one pitcherful. I send you six thousand miles and—what? You drink it in tubs!"

A FOOL'S PARADISE

Every year millions of dollars are spent by the American public for useless and often harmful medicines. So many people who would never imagine themselves capable of repairing an intricate piece of machinery will undertake to repair the most intricate machine of all—the human body.

When you are ill—even though your illness may seem slight—see your doctor. Don't buy a supply of pills or powders with the idea that they'll cure you. It is an old saying among lawyers that the man who tries to attend to his own case in court has a fool for a client. That being true, what could in justice be said of the man who tries to be his own doctor when he is sick?

YOUR CHILD'S BIRTHRIGHT

The official registration of its birth, showing parentage and when and where born, is the right of every child. The new born babe being helpless in the matter, most communities have placed the duty and responsibility of the registration of the birth upon the attending physician or midwife. Under the circumstances, no physician or midwife has performed his whole duty to either of his patients, the child or the mother, until a properly completed birth certificate has been registered. In fact, so great may be the importance to the child in after years of having its birth registered that a physician who neglects his patient's interests to such a degree as to fail to register a birth might in all justice be considered an improper person to hold a license to practice medicine. Very probably, as parents grow to appreciate the importance of the registration of their children's births, the failure of the attending physician or midwife to register the required certificates may become a not uncommon cause of suits at law for damages.—U. S. Public Health Service.

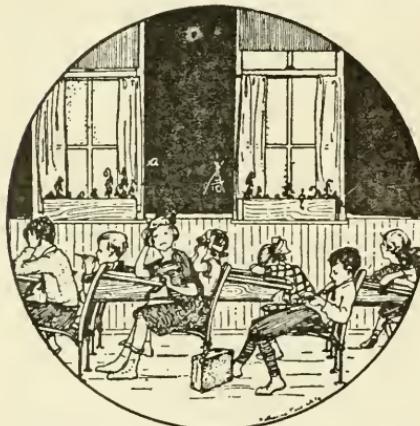
FRESH AIR AND WHY

Let's Have a Little More in Our Schools and Homes

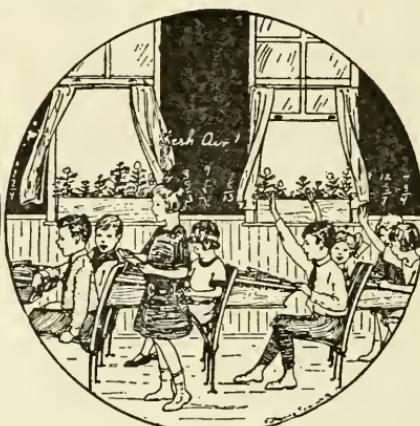
HUNESTINTED supply of fresh air in the schoolroom will help get higher grades, prevent more failures in class work, more cases of headache, colds, sniffles, grippe, and contagious diseases, keep better order, and yield the teacher, school board, and taxpayers greater returns in every way for the money and energy expended than any other investment they

than in winter. Disease material discharged from the mouth and nose of those already affected is quickly scattered and blown away, while, on the other hand, this same abundance of fresh air increases our vitality and ability to resist such diseases. As soon as we begin to huddle together in the fall and close down our windows, up goes the sickness rate. This is largely because we confine ourselves in air-tight houses, schools, churches, and offices. Here we breathe in, in a more concentrated form, the infection

BEFORE AND AFTER TAKING FRESH AIR



WANTED—More fresh air in the curriculum.



WANTED—More North Carolina schools like this.

can make. Fresh air in abundance serves the double purpose, first, of rapidly diluting and carrying off disease particles coughed up and sneezed and spit out, and, second, of greatly building up the individual's physical vitality or resistance so that he can successfully ward off attacks of the above mentioned ailments.

Practically everybody knows that we have fewer cases of colds, measles, scarlet fever, diphtheria, whooping-cough, smallpox, and pneumonia in the summer-time than we do in the winter. One of the chief reasons for this is that we indulge in more fresh air and live out of doors more in summer

given off by others; we swap infections, as it were, and with reduced vitality we soon become victims of colds and other ailments.

Perhaps the best way to admit fresh air through the window is to place a board or piece of framed glass from 6 inches to a foot in width and as long as the window is wide across the bottom of the window in an inclined position, so that when the window is raised from 5 to 10 inches the incoming fresh air will strike this inclined board or glass and be deflected upward. This effectually prevents any objectionable drafts.



The

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The Newspapers and Public Health

The Doctors and the Newspapers to Clear the State of Preventable Diseases

“The doctors and the papers! The health and happiness of the people of a great State are largely in their keeping. ‘Together let us beat this ample field.’ Combining their efforts to a common end—the education of the people in the sane and safe rules of good health, and to the importance thereof—they could in the course of time rid the State of all preventable diseases. There should be no reason why we could not have a State clear of disease of a preventable nature. But we should not be content to stop there. The newspapers and the physicians should set the higher mark of giving North Carolina the finest health record of any State in the Union. With the doctors leading the way and the papers urging the people to follow on, our State might easily be placed at the head of the list.”—*From an address by Mr. Wade H. Harris, editor of the Charlotte Observer, at Durham, April 19, 1916.*

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FREE PUBLIC HEALTH LITERATURE

The State Board of Health has a limited quantity of health literature on the subjects listed below, which will be sent out, free of charge, to any citizen of the State as long as the supply lasts. If you care for any of this literature, or want some sent to a friend, just write to the State Board of Health, at Raleigh. A postcard will bring it by return mail.

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No. 42. Malaria.	How to Live Long.*
No. 47. Privy Leaflet.	Hookworm Disease.*
No. 50. Baby Leaflet.	First Aid in the Home.*
No. 52. Malaria and What Everybody Should Know About It.	The Health of the Worker.*
No. 53. Disinfection After Diphtheria, Measles, or Whooping Cough.	Smallpox and Its Prevention.*
No. 54. Disinfection After Scarlet Fever.	A War on Consumption.*
No. 57. Health Helps for Teachers.	Milk.*
No. 58. Fly Leaflet.	Some Facts About Scarlet Fever.*
No. 59. Typhoid Fever Leaflet. Sanitary and Hygienic Care of Prisoners.	A Few Facts About Measles.*
No. 60. Cancer Leaflet.	Typhoid Fever and How to Prevent It.*
No. 61. How to Nurse a Tuberculous Patient.	How to Build a Sleeping Porch.*
No. 63. Health Catechism.	Dental Lectures.†
No. 67. Adenoids.	Dental Hygiene.†
No. 70. Tuberculosis.	Anti-Spitting Placards (5 inches by 7 inches).
No. 71. Pellagra.	Anti-Fly Placards (14 inches by 22 inches).
No. 72. Smallpox.	Anti-Typhoid Placards (14 inches by 22 inches).
No. 73. Measles.	Anti-Tuberculosis Placards (14 inches by 22 inches).

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THE Health Bulletin



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EDITORIAL

FOR COUNTY HOSPITALS

Resolution Urging County Hospitals for Every County in the State

GHE accompanying resolution was presented by Dr. J. Howell Way, President of the State Board of Health, and unanimously adopted by the State Health Officers' Association at their recent meeting in Durham. In presenting this resolution Dr. Way said in part:

In our judgment as public health workers in North Carolina, the time

Often their construction has saddled financial obligations upon medical men from which they never ceased to be burdened with, all because of a certain pride of profession, or at times a sense of possible duty, that impelled them to take the initiative in providing for the community facilities for the care of the sick, which duty is a community duty, and not a duty of the medical profession as individuals.

There is no more justice in assuming that physicians should erect and pay for the maintenance of a community hospital than there exists justice in the suggestion that lawyers should build the jails and courthouses, or ministers of religion erect the

Resolved, by the North Carolina State Health Officers' Association, That in the judgment of this body the time has now arrived for the individual counties of the State to provide for the erection and maintenance of local county hospitals for the care and treatment of the sick as a necessary and vital part of a proper and advanced health policy.

is now ripe for the separate counties to provide proper care for their sick and afflicted as a necessary public health measure. We believe the sick of a community should have at least as much attention as is given the criminal classes! Witness the comfortable jails built to house our malefactors, and the luxuriously appointed courthouses erected in which to try these same malefactors. Are not the sick worthy of equal consideration? It has been said in the past that we were a poor people and could not afford local county or community hospitals. If this was ever true, it is not true now. By far the large majority of local hospitals in North Carolina for the care of sick people have been built by physicians from their limited funds.

churches for the use of the other people of a community.

A proper appreciation of the advantages of a modern hospital is one of the evidences of advanced civilization, and with this appreciation properly should also come the disposition on the part of local communities to make provision for the care of their sick. The county is the unit of our governmental system, and the counties should feel it as much incumbent on them to make proper provision for the care of those afflicted in body, as well as for those whose moral natures are attuned at variance with the established moral thought of the community. In other words, let us put it up to the average county of our great State, that if the county is financially able to

spend public funds to provide for the criminal classes of society, there exists at least an equally strong if not greater series of reasons why those physically unfit should be cared for. Take the school inspection work going on all over the State as an example of the need of local hospitals. Let the inspector note the imperfections of a given number of children. How many of them are financially able to go to some distant city where proper facilities for the operative care of many such patients are to be had? Once have a local hospital, and there inevitably develops from among the local profession men capable, willing, and anxious to perform the needful operations for which many people of our State yet go to distant cities where ample hospital facilities are to be had. This costs more money to our citizens and retards the development of the local medical profession.

But this is not all. The large majority of the patients needing surgical treatment never get such benefits unless there is a community hospital. Are not the boys and girls, the men and the women of this grand old State worth the investment of sufficient county funds to erect and maintain in every county in North Carolina a community hospital? We will never be a fully civilized people until this is done, and now is the time to make a start in thus bettering the physical condition of our people.

THE SCHOOL NURSE

The value of the school nurse is one feature of medical inspection of schools about which there is no division of opinion. Her services have abundantly demonstrated their utility, and her employment has quite passed the experimental stage. The introduction of the trained nurse into the service of education has been rapid, and few school innovations have met with such widespread support and enthusiastic approval.

The reason for this is that the school nurse supplies the motive force which makes medical inspection effective. The school physician's discovery of defects and diseases is of little use if the result is only the entering of the fact on the record card or the exclusion of the

child from school. The notice sent to parents telling of the child's condition and advising that the family physician be consulted, represents wasted effort if the parents fail to realize the import of the notification or if there be no family physician to consult. If the physical examination has for its only result the entering of words upon record cards, then pediculosis and tuberculosis are of precisely equal importance. The nurse avoids such ineffective lost motions by converting them into efficient functioning through assisting the physician in his examinations, personally following up the cases to insure remedial action, and educating teachers, children, and parents in practical applied hygiene.

To sum up the case for the school nurse: She is the teacher of the parents, the pupils, the teachers, and the family in applied practical hygiene. Her work prevents loss of time on the part of the pupils and vastly reduces the number of exclusions for contagious diseases. She cures minor ailments in the school and clinic and furnishes efficient aid in emergencies. She gives practical demonstrations in the home of required treatments, often discovering there the source of the trouble, which, if undiscovered, would render useless the work of the medical inspector in the school. The school nurse is the most efficient possible link between the school and the home. Her work is immensely important in its direct results and far-reaching in its indirect influences.

Don't get the medicine habit, and don't get peeved with your physician if he tells you that you need to take things easy and spend more time resting in the open air, or if he tells you to change your diet and drink more water and at the same time does not give you any medicine to take. In such a case you will have at least the consolation that you have an honest man for your doctor.

AN OPEN LETTER

A Case Wherein a Friend Becomes a Dangerous Enemy

HE following letter is a reply to an inquiry which is typical of many received by the State Board of Health, asking if anything can be done to prevent a certain class of afflicted persons from spreading their affliction:

Dear Sir:—I don't know what to advise you in regard to your friend C—. I know how uncomfortable you must feel to have such an unsuspecting, dangerous person in the office with you, especially if he smokes, coughs and spits on the floor, stove and everything else as you say, and refuses to have any ventilation whatever. From your description of his cough and other symptoms, I should think he ought to be in a sanatorium right now where he would learn not only how to take care of himself, but how not to be a menace to others.

If he were a hog and had hog cholera, of course the State veterinarian would take the very best care of him and he would see to it that he did not in any way endanger the remainder of the herd. If he were a cow and had the foot-and mouth disease, the federal authorities would be down there in great shape and not only your little town, but doubtless your county, and perhaps the entire State of North Carolina, would be quarantined. Now, of course, since your friend C— is only a human being and the rest of you are nothing but human beings, I don't see any hope for you. The State Board of Health, of course, would like to see your friend C— have a thorough physical examination just as we would like very much to have every person in North Carolina have such an examination, and if there is anything wrong with him, to have the defects remedied at once instead of endangering his fellow-men.

In one of the counties, a few days ago, an epidemic of hog cholera broke out, and had continued four weeks when an indignation mass-meeting was held and, as I understand, a county board of health for hogs was instituted who are going to wipe hog cholera out of the county.

It would, of course, be just as easy to wipe typhoid fever, tuberculosis, or any of the other contagious diseases out, but human beings are human beings and hogs are hogs.

HEALTH AND MORALS

No social agency is more earnest in its demands upon the church for co-operation than is the cause of public health; no agency, to my mind, offers a greater return for such co-operation. Public health asks the church to join hands with it in giving men better bodies, and it promises that when men's bodies shall be stronger, their spirits will be nobler. Public health asks the church to assist it in making sanitary the community to which the church ministers, and it pledges the experience of the world to show that, when this is done, none will benefit more than the church. All things being even, the healthy man is the moral man; other considerations alike, the sanitary community is the spiritual community.—Dr. Ennion G. Williams.

HEALTH OFFICERS PUT BAN ON DRINK

At the annual convention of the Health Officers' Association of New Jersey, held recently in Newark, the following resolution was adopted:

Whereas, alcoholic beverages are detrimental to health and indirectly the cause of disease:

Resolved, That the Health Officers' Association recommend that a campaign of publicity be inaugurated by the State and local departments of health for the purpose of informing the public of the dangers to life and health which attend the use of such beverages.

THE NEWSPAPER AND THE PUBLIC HEALTH

Extracts from an Address by Mr. Wade H. Harris before the North Carolina Medical Society at Durham, April 19, 1916

HE banishment of liquor from the medicine chest accelerates the approach not only to a new and better standard in public health, but in the morals of the country. In recent days the world has stood in shocked and sorrowful contemplation of the god of war charioteering through a continent and leaving an overwhelming river of blood in his trail, but the weeping of the widows and the wailing of the orphans assailing his ears is only a faint echo against the tumultuous wave of anguish that has swept over the civilized nations for ages past in the wake of King Alcohol. Liquor has drenched the world in a volume of tears that would cleanse the battle-fields of all peoples from every crimson stain.

The changing condition is not being wrought because the doctor of today is possessed of more courage than the doctor of yesterday, but because he lives in the light of a better knowledge and has the assistance of the newspapers in spreading this light. The doctor is not making a fight on whiskey in the prohibition sense of the word. He is waging a campaign for temperance and health. It is a fight for health without alcohol.

It is probable that the most conspicuous local service rendered the medical profession and the State by the newspapers has been in the typhoid fever campaign. At the outset there was encountered a prejudice that bid fair to balk the efforts of the doctors, but the papers inaugurated a campaign of education which was attended with excellent results. The State Board of Health, through the Laboratory of Hygiene, manufactured and furnished

vaccine free of charge to the people of the State, and 12 entire counties were covered. In these 12 counties 51,824 people were given complete immunization from typhoid. The typhoid cases were brought down in those 12 counties from 175 in 1914 to 132 in 1915. In addition to the people treated in the counties named, fully 50,000 have had treatment by whole-time health officers and various organizations.

A more striking illustration of the benefits of vaccination may be obtained by the experience of counties that conducted vaccination campaigns and counties that did not. Rutherford County was one of the latter. The typhoid death rate in that county increased 300 per cent during the time that the typhoid death rate in the adjoining county of Henderson, that had conducted a typhoid campaign, decreased 25 per cent. In consequence of a campaign conducted in Wayne County, its typhoid death rate was reduced 65 per cent. The adjoining county of Lenoir did nothing, and its death rate increased 25 per cent. Statistics for the vaccination campaign in the State as a whole are not yet available, but there is little doubt that the instances cited are fairly representative of results in other counties. Enough is known to make sure of the fact that in the assistance rendered the State Board of Health in so materially abating the typhoid fever menace and in so short a time the newspapers have proved themselves a boon to humanity.

One of the proudest successes to the credit of the doctors of North Carolina is found in the establishment of

the State Sanatorium for the Treatment of Tuberculosis, and yet it is doubtful if this success could have been attained at this time but for the useful work of the newspapers in creating a public sentiment in favor of that institution. Its benefits were persistently exploited, prejudice was combatted, and the Sanatorium was popularized through the educational efforts of the press in its behalf. The newspapers have also lent their influence to the general campaign against tuberculosis throughout the State, and there again the influence has been powerfully effective.

In still another direction, that of educating the people to the importance of medical inspection for the public schools, the newspapers have proved an excellent ally of the doctors. The

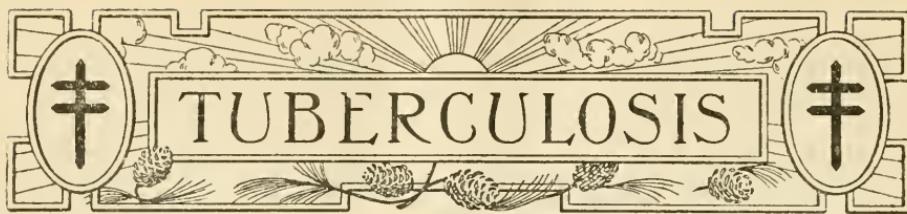
people in the sane and safe rules of good health and to the importance thereof—they could in the course of time rid the State of all preventable diseases, and that happy condition once secured, a public that should come into an appreciation of immunity and its blessings could be depended upon to maintain it. There should be no reason why we could not have a State clear of disease of a preventable nature. But we should not be content to stop there. The newspapers and the physicians should set the higher mark of giving North Carolina the finest health record of any State in the Union. With the doctors leading the way and the papers urging the people to follow on, our State might easily be placed at the head of the list. The

The most important work of the press has been in the battle for good health against alcohol. Where former traditions had it that liquor was good for every ailment that flesh is heir to, the papers have brought the people to the understanding that it is good for none. In the creation of a prejudice against alcohol as a medicine, the papers have laid a foundation upon which the doctors have easy work to build, for, with alcohol banished, the most common and the most insidious enemy to public health disappears.

wisdom of this advanced step in safeguarding the health and even the lives of the children has had abundant evidence in a recent outbreak that caused all the schools and even the churches in one town in North Carolina to be closed. During the prevalence of the epidemic responsible for the closing of the schools and churches, the overlooked matter of medical inspection for the schools received discussion, out of which, it is to be hoped, much benefit will flow to the entire State, for the value of the ounce of prevention never before had a more impressive demonstration.

The doctors and the papers! The health and happiness of the people of a great State are largely in their keeping. "Together let us beat this ample field." Combining their efforts to a common end—the education of the peo-

fight for a State with the minimum of conditions productive of disease and the maximum of health has been more than half won. The medical and health organizations have brought about results out of which should come every encouragement to renewed endeavor. The work of the present day has one tremendous advantage over that of the pioneers in the good-health campaign in North Carolina. It has an educated public sentiment behind it, and it has an enlightened coöperation. We are out of the woods. The crest of the hill has been negotiated, the rougher places have been left behind, and the going is good. In the noble task of giving North Carolina a clean face and a sound body, God speed to the excellent and capably organized service represented in this gathering.



WHY DOCTORS SHOULD REPORT TUBERCULOSIS

To the Doctors' Advantage as Well as to the Patients' and Public's Good.

DE have seen that the physician who does not report his cases of tuberculosis to the Bureau of Tuberculosis thereby violates the law, and prevents knowledge of the existence of a new center of possible infection coming to those whose duty it is to prevent contagion. Such a physician occupies precisely the same position as the citizen who would not report a fire to the fire department through the alarm box.

One would be led to think, from the general high character of the medical profession, that such evasions or violations of the law would be beneath physicians. Yet the fact remains, in this State that physicians are not reporting their cases of tuberculosis in anything like the volume in which these cases occur. They are doing so more and more, however.

The question arises, why do not the doctors report their cases of tuberculosis? Here are some of the reasons:

Why Doctors Do Not Report

All doctors do not know tuberculosis when they see it in its early stages. The fullest knowledge of the diagnosis and treatment of tuberculosis is of recent acquirement, and physicians who learned their art two or three decades ago, and have been so busied with practice as to be unable to keep up a progressive course of study, simply do not know what may be termed "the fine points" of modern diagnostic science with reference to this disease. It is emphatically stated by

the highest medical authorities that when the symptoms of the disease become sufficiently advanced for the physician of this type to recognize them all hope is past for the patient. Not knowing the disease, some doctors, therefore, cannot report it.

Then, there are physicians who believe that it is not wise to tell a patient when he has tuberculosis, or consumption. The medical profession is limiting more and more the scope of this practice of secrecy, but it still obtains where much more harm than good is done by it. Consumption has hitherto been so hopeless that doctors have been silent because of the effect the lay notion of hopelessness may have on the patient. This, however, is seen to be a most mistaken policy. It is an evasion which sooner or later is exposed and thus confidence is irremediably destroyed.

Some doctors simply refuse to report either to the authorities or to the patient's family the existence of consumption because of the stigma it is supposed to bring with it. They would shield the patient at the expense of the public.

Other doctors do not tell the patient that he has tuberculosis because the patient is, in certain early stages, unlikely to believe him, to regard him as an alarmist, and to transfer his consultation to another physician. This sometimes leads some doctors to put off with remarks about "a weak chest," or "a run-down condition," what is really a case of incipient tuberculosis needing prompt and strict attention in the proper way.

Why They Should Report

These are some of the reasons why

physicians do not report. They have been ascertained from actual incidents. The facts are well enough known to the better informed members of the profession. They have led to some pretty plain statements from physicians to physicians with regard to the matter. But these reasons are not reasons at all. It is to the doctor's advantage, the patient's advantage and the public's advantage that tuberculosis cases be reported at once. To the doctor's advantage because it shows him to know his business. To the patient's advantage because it enables him to exercise greater care of himself than perhaps would be the case otherwise, as well as opening the way to instructing

his ailment. He does not know how to interpret his symptoms. He is a blind man walking a perilous road unknowingly.

And this happens: The sick one's family is in ignorance of their own danger, and do not take those simple precautions which will prevent contagion. There are in North Carolina today hundreds of persons infected with tuberculosis contracted from members of their own family whom they were not told had the disease.

And this happens: The patient, as long as he is able to be about, takes no care whatever to destroy his dangerous sputum and thus protect others.

And this happens: Where no report is made, the house or room inhabited

PRESIDENT WILSON ON TUBERCULOSIS

Experts state that one-half of all who die between the ages of eighteen and forty-five are victims of tuberculosis, but no repetition of figures, no emphasis of speech, no words of warning, can add to the horror and terror and responsibility which, in the public mind, attach to the gruesome devastation of this disease. People, public and private, who do not perform every act within their power to check this scourge are almost guilty of negative murder.

him how to prevent himself being a menace to others. No stigma whatever attaches to the consumptive who follows those rules which prevent him from exposing others to the disease. To the public's advantage because it informs the health forces where danger has broken out, and enables them to combat it.

Should the Physician Tell the Patient If He Has Tuberculosis?

What happens when the physician does not tell his patient if he has tuberculosis and does not report the case? This happens: The patient does not avail himself of the means necessary for arresting the disease. He does not sleep in the air. He does not avoid those conditions which aggravate and hasten the progress of

by the consumptive is not disinfected after his or his family's removal, and innocent citizens and their families move in only to be struck down by the invisible plague, which lay in wait in that house or room. Some of the stories of "house infection" resulting from a mere refusal to report a case are most heart-rending. Where a case is reported, the Bureau of Tuberculosis takes special care that the habitation is not permitted to infect later occupants of the same premises. This, if nothing else, would justify the law requiring physicians to report cases.

You see, then, the necessity for these reports. You see also the ground for the health authorities' insistence that they be made. You can readily understand how refusal on the physician's part subjects him to court proceedings.

A physician being as much a guardian of the public health as though he were under special appointment should be the last person in the world to harbor infection or to let it roam amongst an unwarned people.

There are no confidential cases of consumption.

CONTAGION AND IGNORANCE

It is absolutely unnecessary for your children to have measles, scarlet fever, whooping cough, etc., in order to grow up. You often hear the expressions, "The younger they have it the better," and "They might as well have it now as later on." Having some contagious diseases today is a mark of ignorance or neglect. "Contagion is an offspring of dirt, a relative of disease, and a chum of death. It springs from neglect and is a result of excuses." It jumps at the children as do all cowards and adds to their burden of environment and heredity by weakening resistance. Nearly all contagious diseases leave their mark. It may weaken the heart, the lungs, the kidneys, muscles, or nerves. Some mothers deliberately expose their children to a contagion. This is nothing short of a crime. Contagion is not a necessary evil. It is preventable and is spread by carelessness. Because contagion may leave no visible marks is no evidence that ill health arising at some future time is not a direct result of contagious disease. Contagion loves stealth and its most dangerous marks are those invisible to the layman.

WILL IT PAY TO LOOK AFTER OUR HEALTH?

If it pays to pay one man eighteen hundred dollars to see that our deeds are properly recorded—and it does pay—who will say that it will not pay us to spend the same amount of money to see that the health of the children of the county is looked after? To see that fewer little mounds are made each year in the church yards of this county. To see that strong men who die with typhoid fever are saved

to their family and friends by using all the modern preventives for this or other such diseases.

Are not the lives of our people worth as much as our roads, are they not worth preserving as are the roads of our lands and the titles of our property? Let us think over these things and see what we will do about it.—Catawba County News.

VALUE OF BIRTH REGISTRATION

The registration of a child's birth forms a legal record that is frequently useful and may be of the greatest importance. It establishes the date of birth and the child's parentage. It may be required to establish the child's age for attendance at public schools or for a working certificate in States where restrictions are placed upon child labor; to show in courts of law whether a girl has reached the age of consent, or whether individuals have attained the age when they may marry without the parents' permission; to establish age in connection with the granting of pensions, military and jury duty, or voting. It may be important in connection with the bequeathing and inheritance of property or to furnish acceptable evidence of genealogy.

WAITERS HAVE HEALTH TESTS

More than 100,000 waiters, cooks, omnibuses, and dishwashers, employed in the 4,500 restaurants and hotels in New York, have been notified by the City Health Department that they must obtain without delay certificates stating that they are free from tuberculosis, typhoid, or any other infectious disease. Proprietors who employ persons not equipped with certificates will be deemed guilty of a misdemeanor and will be subject to a fine of five hundred dollars or imprisonment for one year.

Fresh air, sunshine, and a cheerful disposition are the best tonics; but no drug store sells them.

PERSONAL HYGIENE



COLDS

(Coryza)

Cause, Prevention, and Home Treatment of Colds

COLDS are probably the most common infection to which mankind is heir. It is generally agreed that they are caused by some form of bacterial infection.

Common colds are estimated to cost the people of North Carolina between two and three millions of dollars every year in loss of time to wage earners, cost of "patent medicines," and doctors' fees. This estimate does not include the loss of time or inefficiency for the few days the cold is developing nor for the weeks of inefficiency during convalescence.

By far the greatest damage done by colds is that they lay the foundation for so many other more serious or fatal diseases. A very large number of all cases of tuberculosis started with a "bad cold." If it had not been for the cold, the body would not have had its resistance lowered to such an extent that the germs of tuberculosis were able to gain a foothold. The "common cold" is also a powerful ally of pneumonia, meningitis, and diphtheria.

When colds are frequent, the adenoids and tonsils enlarge, the membranes of the nose become thickened, and the natural functions of the nose and throat are greatly impaired. It is generally believed that this condition enables infection to find its way

to the joints, causing rheumatism, or to the heart, causing what is called a few years later, heart disease, or to the kidneys, causing Bright's disease. Besides all this, colds are directly responsible for much of our deafness, roaring in the ears, earache, and other troubles. It is also responsible for much of the toothache, inflamed eyes, mastoiditis, voice troubles, and other ailments.

Cause and Prevention of Colds

There are just two principles to remember in order to avoid colds. They are, first, to avoid all possible exposures to cold infections, and, second, to build up your vitality or physical resistance sufficiently that you can overcome all the infection that you cannot avoid.

In the fight against colds, fresh air is a double-acting preventive. In the first place, it dilutes, carries off, and destroys the cold infection from those having colds, thereby minimizing the cold victim's danger of infecting others. In the second place, it is one of the greatest elixirs of life and vitality known. It has been proven that a person in a closed room may cough or sneeze out germs which may be found in the air of the room a half hour later. On the other hand, if the windows are open or the coughing and sneezing are done in the open air, the fresh air carries the infection away or so dilutes the dangerous particles discharged that they are of little danger unless they are discharged or blown into another's face.

There is nothing so simple, cheap and easy for every one to get as fresh air. Live in the fresh air twenty-four hours a day. Sleep with your windows open summer and winter. Sleep warm in winter by using plenty of light, warm blankets. Have fresh air in the living room, school, office, and shop by placing inclined boards,

for it is through coughing, sneezing, and spitting rather than through normal breathing that the germs from the lungs, throat, and nose are sprayed into the atmosphere, where they are breathed in by others. Crowds, particularly in unventilated churches, theatres, schools, and halls, should be avoided, for the reason that any care-



or pieces of glass, across the lower part of the window and then raising the lower sash from six to ten inches. The incoming fresh air will be deflected toward the ceiling, preventing a draft and giving an agreeable mixture all over the room. This deflector may be fastened in place by cleats or adjusted by means of small chains.

The proper temperature of the living room or office is 65 to 70 degrees; for the shop or school, 60 to 65 degrees. Use a thermometer to regulate the temperature. They cost from 10 cents up.

To avoid cold infection, avoid the careless cougher, sneezer, and spitter,

less person may readily expose others to his own infection.

Increasing Our Physical Resistance

Constipation is frequently a strong predisposing cause to colds. An excellent way to overcome the habit of constipation is to eat comparatively little meat or pastries, but an abundance of fruits and vegetables. In order to add bulk to the food, eat from two to six tablespoonfuls of bran once or twice a day. Drink from eight to ten glasses of water daily, including two before breakfast. Rowing, chopping wood, horseback riding, and other daily exercises that bring the abdominal

muscles into play are excellent. Persevere until regular habits are established at least once every day.

Alcoholic drinks of all kinds are worse than useless. They are positively harmful. Pneumonia, a close kin to a cold, is particularly fatal among drinkers.

The mouth and teeth should not be kept as a menagerie, aquarium, or plantation for bacteria. Brush the teeth at least twice a day, and keep them in good repair at all times.

Children with diseased adenoids and tonsils are usually the victims of colds much of the time. The removal of these or other nasal obstructions frequently works wonders in preventing colds.

Another very important factor in building up resistance against colds is to take brisk cool or cold sponge baths about the neck, arms, chest, and abdomen, and under the arms, each morning immediately upon arising, followed by a brisk, hard rubbing with a coarse towel until the skin glows.

Cold Symptoms

Oncoming colds usually begin with a slight headache or an achy feeling over the body, a chilly sensation followed by a slight fever, "running of the nose," and sneezing. Quite often there is a sore throat. The trouble often spreads to the eyes, causing red, watery eyes, or to the teeth, causing toothache, or to the face, causing neuralgia.

Treatment of Colds

In treating a cold, begin early—the earlier the better. Even at the very best, results are frequently disappointing. First of all, secure prompt, free, and easy bowel action. Take a good dose of Epsom salts, followed by several glasses of hot water, hot lemonade, or flaxseed tea. In the meantime, take a hot foot bath nearly to the knees, if possible, for twenty to thirty

minutes, increasing the temperature as much and as rapidly as can be borne. Take the foot bath in a warm room with the patient well protected by blankets or bath robes. If the foot bath can be given by another with the patient in bed, so much the better.

Immediately following the hot foot bath, if not given in bed, the patient should retire in a warm bed in a light airy room, but with no draft across the patient's bed. Here the patient should remain for at least twenty-four hours, remembering that rest, fresh air, abundance of water, and free bowel action are the prime factors in promoting a speedy cure.

Twice a day for two or three days the adult patient may with advantage take a seven-and-a-half-grain dose of "hexamethylenamine" dissolved in a glass of water. Hexamethylenamine usually comes in five- and seven-and-one-half-grain tablets. One grain per twenty pounds of body weight is the proper dose.

As a special means of relieving the headache, feverishness, and general ill feeling accompanying a cold, the following preparation will usually be found of value: Have your druggist take eighteen grains of salol, eighteen grains of quinine, twenty-four grains of phenacetin, and four grains of citrate of caffeine, and make into twelve capsules. Take a capsule every two hours for six hours, then one every three hours for the next eighteen to twenty-four hours. Some authorities prefer five-grain aspirin tablets taken as above instead of the preparation suggested. Of course, only one treatment should be taken at a time.

The patient should eat very little food for a day or two. It is usually advisable to miss a meal or two and then eat only fruits, vegetables, bran gruel, and bulky foods, and drink lots of water, being sure to have the bowels move several times each day.

Rock and rye, or whiskey and quinine, should be tabooed, at least for the time being along with the so-called "catarrh cures," "cold cures," and other patent medicines, until the cold is well and the system can gain sufficient strength to better withstand such onslaughts.

If the situation is not improved within twenty-four hours, a doctor should be called, for it should be borne in mind that a cold is a far more serious thing than it is usually considered. If a chill or a pain in the side is noted a doctor should be called at once. Pneumonia may be developing. Colds and pneumonia are so closely allied that the layman cannot afford to take chances. "Only a cold" is a contemptuous snare that has lured many an otherwise healthy person to an untimely grave.

Last of all, if you contract a cold, don't give it to others. Cough and sneeze away from others and with a handkerchief before the nose and mouth. If you have to spit, do not spit upon the floor or sidewalk, but spit where it will do no harm.

Stop your cough and guard your sneeze,
For by such acts you spread disease.

MALARIA AND WHAT TO DO ABOUT IT

Unfortunately, quite a large number of North Carolinians will be more or less exposed to malaria from about the first of May until about the first or second good, heavy frost this fall. To all such it is highly important to know how to avoid malaria.

Malaria, or chills and fever, may be avoided by four different methods. First, by getting rid of the anopheles or malaria-producing mosquitoes. Second, if it seems impractical to get rid of the mosquitoes, we should at least avoid them. In the third place, these mosquitoes are not sinning if they are not first sinned against; in other words, the malaria-producing mosquitoes do not produce malaria

unless they are first infected by having bitten some human being having the malarial parasites in his blood, therefore keep mosquitoes away from persons having malaria. Finally, whether we are bitten by malarial mosquitoes or not, we can make ourselves practically 100 per cent immune against malaria by taking five grains of quinine daily from about the first of May until the first heavy frost.

There are two principal methods of getting rid of mosquitoes. First, by destroying their breeding places, that is, by draining low, wet, swampy places, or by filling up such places, or by oiling stagnant pools of water each week, or by trimming the banks of ponds and slow running streams and introducing fish, particularly minnows. A further means of getting rid of malaria-producing mosquitoes is to destroy their shelters by cutting down all weeds, brush, and undergrowth near their breeding places.

In regard to avoiding the mosquito, this may be done either by thoroughly screening every door and window or by screening the bed with mosquito netting or by moving away from places, as some people do where malaria-producing mosquitoes have the upper hand and where mere weak, sickly, puny man serves as mosquito bait.

To keep from infecting mosquitoes, we can either screen the mosquitoes away from malarial persons or we can cure these malarial persons. Of course, the latter is the proper course, but in the meantime thorough screening of the patient should not be omitted.

Finally, if you do contract a case of malaria, see a physician at once. Do not merely take a few doses of quinine until the chills "break" and you think you are well. You will not be well, but you may be able to drag out a miserable existence through the remainder of the summer or perhaps for a year or two and wonder why you are always feeling so badly and unable to make any headway with your work, whereas a thorough treatment of quinine would in all probability clear up the difficulty.

For the benefit of those who for any

reason are unable to reach a physician, it might be noted that in general the treatment for an adult is to take about five grains of calomel followed in four hours with a tablespoon full of Epsom salts, and in the meantime begin taking five grains of quinine every four hours for three days. At the end of three days, reduce the dosage of quinine to five grains every six to eight hours. Continue this treatment of quinine for three days, after which five grains of quinine should be taken every twelve hours for a week, to be followed by five grains of quinine every day until the first heavy frost. This, it will be understood, is merely a suggested treatment and it is not recommended that it should be followed generally without first consulting one's family physician in regard to the patient's individual needs.

CANCER ON THE INCREASE

Patients Are Too Slow in Recognizing the First Signs

Cancer appears to be on the increase in every civilized country. The death rate in the United States registration area increased from 62.9 per 100,000 population in 1900 to 78.9 in 1913. The increase in the recorded cancer death rate is sometimes attributed to improved medical diagnosis and better statistical methods, but these factors seem insufficient to account for the widespread increase reported from practically all countries, or for certain significant variations when the rates are studied for particular organs by age and sex and by different areas and countries.

Women and Cancer

At ages over 40, cancer causes one death out of every eight among women and one out of every fourteen among men. Of the 80,000 estimated deaths from this disease in our country at all ages during the year 1915, approximately 67,600, or 84.5 per cent., occurred at ages of 45 and over.

Between the ages of 35 and 45 three times as many American women as men die of cancer, between the ages of 45 and 55 twice as many. Generally speaking, the excessive mortality among women is due to cancer of the breast and of the generative organs. These forms of the disease, like others, are curable by qualified treatment in the early stages.

What the Patient Must Do

Records of many doctors prove that patients now neglect to seek advice for a year or more after noticing suspicious symptoms. The surgical treatment of cancer has advanced practically to the limit of efficiency and further progress in overcoming, by surgical means, this ancient enemy of the human race must come chiefly through the coöperation of the patients. Intelligent persons must learn to recognize the danger signals and seek advice and treatment at the earliest possible stage, when cancer is most curable.

Cancer is a curable disease and probably 60 per cent. of the 80,000 yearly deaths are unnecessary and preventable. It is a popular misconception to say that we know nothing about the cause of cancer. Much is now known about the conditions, such as habits of life, predisposing factors and the various forms of chronic irritation, under which the disease arises. If this knowledge were more widely disseminated and utilized the mortality from cancer would undoubtedly be reduced.

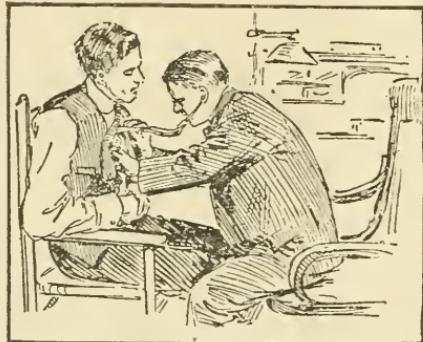
A Local Disease at First

Cancer is curable because it is at first a local disease and not a constitutional or blood disease. It begins in one spot as a small growth, which in the early stages can be removed. If this is done by a competent surgeon, every trace of the disease can often be removed so that it will not return. If neglected, however, cancer spreads like a fire and gets beyond control. And as with fire, anything less than complete extinguishment may stir up sparks and spread the trouble.

KEEPING IN REPAIR

Don't Become an "Utterly Hopeless Case"

HBOUT five years ago, the officers of a life insurance company decided to offer their policyholders the privilege of a free medical examination once each year, for the purpose of inspecting the human machine in order to detect the need for repair. Out of 2,500 people who accepted this service, forty per cent were found more or less out of order and in need of repairs, most of the derangements being found in the heart, blood vessels and kidneys, as the average



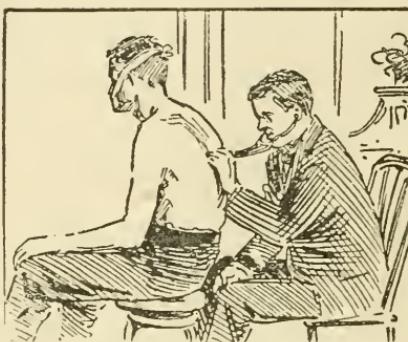
The wrong way to be examined.

age of the group was high—46. Of those found impaired, forty-four per cent were not aware of impairment. The insurance company did not, of course, undertake to treat these people, but with their consent reported the impairment to their physician or to such physician as the policyholder designated, upon whom the task of repairing the machine devolved.

What was the result? At the end of four years, an actuarial analysis showed that among those found impaired the death rate had been only ninety-seven per cent of that upon which premiums are based, or, since they were impaired risks, about fifty per cent of that reasonably to be expected, allowing for the impairments. In other words, if these risks had not come under the system of periodic health examinations, the mortality would have been double that actually ex-

perienced. Making all possible allowance for the smallness of the group and the short duration of the experience, an emphatic saving of life was demonstrated. Even among those reported unimpaired, a very low mortality was experienced, as many of these people were on the border line of impairment or were not living hygienically, and were guided accordingly.

Regular inspection of the human machine will soon include a large proportion of the population, and no doubt become in time a commonplace and common sense measure, just as obviously necessary to individual and social welfare as the inspection of banks and insurance



The right way to be examined.

companies, and of the various machines that are likely to go wrong.

If the human machine is found to be out of repair, what next?

When an ordinary machine is out of repair, we use common sense in selecting a repairer. If it is an electrically-driven machine, we send for an electrician; if it is the plumbing, we send for the plumber: but when the human machine is out of order, we ask our neighbor or the druggist or even the office boy for advice until pain finally drives us to the human repairer—the physician—who is expected to undo all the harm that our procrastination has wrought.

Surely, a patient enjoys more keenly being kept alive and well than having a diagnosis made, out of which he can extract no satisfaction except that he is an "interesting" and utterly hopeless "case."



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No. 4

A BAG OF FERTILIZER AND A BOTTLE OF DOPE

One is for a plant.

One is required by law to print its ingredients on the package.

One can be used intelligently, in accordance with scientific knowledge regarding the effects of the substances on plants.

One thrives upon openness and public intelligence.

One defrauds with difficulty.

For the one, the Government, knowing its composition, can furnish the consumer exact information as to its effects.

The other, for a child.

The other is not required to disclose its ingredients.

The other cannot be used intelligently, in accordance with scientific knowledge regarding the effects of the substances on human beings.

The other thrives upon secrecy and public ignorance.

The other defrauds with ease.

For the other, the Government, not knowing its composition, cannot furnish the consumer any statement regarding its effects.

Is it just and right that the farmer may know what he gives his plants, and unjust and wrong to allow the parent to know what he gives his child?

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The State Board of Health has a limited quantity of health literature on the subjects listed below, which will be sent out, free of charge, to any citizen of the State as long as the supply lasts. If you care for any of this literature, or want some sent to a friend, just write to the State Board of Health, at Raleigh. A postcard will bring it by return mail.

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No. 61. How to Nurse a Tuberculous Patient.	Concrete Septic Tanks†
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No. 72. Smallpox.	
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No. 4

THE "PATENT MEDICINE" BUSINESS OR, ACCURATELY SPEAKING, THE SECRET REMEDY BUSINESS

THE PIG IN THE PEN AND THE PIG IN THE POKE

One you buy knowing what you are getting; the other you buy not knowing what you are getting. This is the difference between the two great classes of medicines—the open and the secret.

The Pig in the Pen

The open or non-secret remedy is a preparation the composition of which is published. The name and amount of each ingredient are not withheld, but are freely furnished the user. People who take medicines of known composition may ascertain through their Board of Health what the effect of the remedy will be in small or large doses or over a short or a long period of time. With this class of remedies public health has no quarrel.

The unobjectionable open remedies may be subdivided into two classes:

- a. Patent Medicines.
- b. Official Remedies.

The term "patent medicine" is misused probably 999 times in 1,000. As ordinarily and erroneously used, the term refers to the secret remedy. The patent medicine is not secret; the word

patent means open, not secret; moreover, a patent medicine means that the preparation that is patented embodies an invention or discovery of merit, as attested by the granting of patent rights by the United States Patent Office. In securing patent rights the owner of the remedy files with the Patent Office complete information as to the composition and the method of manufacture of the remedy. The public can secure this information about any patent remedy from the Patent Office. Examples of valuable patent medicines are **aspirin**, **urotropin**, and **salvarsan**. Comparatively speaking, there are only a few patent medicines. The important point to remember is, **PATENT MEDICINES ARE NOT SECRET REMEDIES**.

The term "official remedies" refers to the standard remedies listed and fully described (therefore, non-secret) in the United States Pharmacopoeia. The remedies admitted to the Pharmacopoeia as standard and official are passed upon by a large committee representing the Public Health Service of the United States Government, the Medical Departments of the United States Army and Navy, the American

Pharmaceutical Association, the American Medical Association, and the medical schools. This Pharmacopœia is revised every ten years. Everything known about the preparations which it contains is published; nothing is kept from the public. It contains between 900 and 1,000 preparations. OFFICIAL REMEDIES ARE NOT SECRET REMEDIES.

The Pig in the Poke

The secret remedy or medicine is one of unpublished and, except to the manufacturer, unknown composition. The name and amounts of its ingredients are purposely and obstinately denied the user. People who take secret remedies of unknown composition have no way of knowing what they are taking, either qualitatively or quantitatively, or what are to be the effects of the unknown drugs when taken in varying doses and for variable periods of time. The patent medicine users act, not upon their intelligence, but upon their faith in manufacturers of drugs concerning whom they have no reliable information and whose principal object is to sell their products. As to whether the reputation of patent medicine manufacturers, as a class, entitles them to this confidence, the reader is referred to those sections of this article entitled "Examples of Secret Remedies" and "Tricks of the Trade."

Secret remedies are NOT patent medicines. Unlike patent medicines, which are patent and open as to composition, they are secret as to composition. Patent medicines are based upon originality that expresses itself in invention or discovery; secret remedies are based not upon any originality that takes the form of any invention or discovery that the Patent Office has or would recognize for one in a hundred. THE SECRET REMEDY IS NOTHING MORE THAN AN ORDINARY PRESCRIPTION, FOR WHICH

A TRADE-MARK HAS BEEN SECURED AND WHICH IS COMPOUNDED AND SOLD IN ENORMOUS QUANTITIES THROUGH EXTENSIVE ADVERTISING. Registering trade-marks and securing patent rights are very different accomplishments; one is easy, the other difficult.

Another interesting but minor difference between the open, patent remedy and the secret remedy is this: When a formula for a patent medicine is filed with the Patent Office, the manufacturer must continue to manufacture the medicine in exact accord with the formula as filed; the manufacturer of a secret remedy can substitute from time to time, as his commercial interests dictate, a cheaper for a more expensive ingredient. See "Tricks of the Trade," page 58, paragraph 5.

EXAMPLES OF SECRET REMEDIES

Introducing the Witness

In discussing this phase of the secret remedy business it is almost essential, in view of the great differences of opinion that exist and in view of the opposition of large financial interests (estimated at \$300,000,000) engaged in the secret remedy business, that we state no fundamental fact that cannot be successfully defended, and that we quote from none but the highest authorities, especially non-partisan authorities, that is, authorities representing neither the secret remedy business nor the medical profession.

Most fortunately for us, the British House of Commons, probably the greatest legislative body in the world, appointed a committee of thirteen of its own members on the 10th of June, 1914, to investigate and report upon this question. This committee held thirty-three public sittings and examined forty-two witnesses put forward by the secret remedy manufacturers, the British Medical Association, and the

Government. This committee secured its information from the answers to 14,000 questions asked these witnesses. The report of this committee, published as a Government document by the British Government, contains 780 large pages. This report embodies the most thorough investigation of the secret medicine business ever made under governmental direction, and it goes without saying the report deserves the utmost respect of the people.

It will be contended by the secret remedy interests that the conditions existing in the secret medicine business of Great Britain are essentially different from conditions existing in this same business in the United States, and, therefore, that this report would not apply to conditions existing in the United States. We emphatically deny this contention. We admit that the secret remedy business has improved in the last two years in some minor respects. We admit that the secret remedy business in the United States differs in superficial details from the secret remedy business of Great Britain and her colonies. We further admit that certain Federal laws in existence in this country slightly, and only slightly, safeguard the public against the fraud and danger of secret remedies. On the other hand, we contend that the secret remedy business in Great Britain and the secret remedy business in the United States are fundamentally alike—their brotherhood in iniquity being their common dependence upon SECRECY OF COMPOSITION.

The Select Committee of the House of Commons in regard to examples of secret remedies has this to say:

Examples of Secret Remedies

"In order to show the character of a large class of secret remedies,* and at the same time to exhibit the general justification of some of our recom-

mendations, we think it desirable to give in detail a number of facts we have elicited in examination of witnesses. The following examples are taken almost at haphazard,* but they are types* of innumerable old and new preparations advertised widely throughout the country, and they are constantly being added to. We would draw special attention to the fact that three of the remedies mentioned below (a, b, and i) are the property of witnesses not selected by ourselves, but put forward by the Proprietary Articles Section of the London Chamber of Commerce as representative of the trade in secret remedies.

"(a) 'Mother Seigel's Syrup.'—This is one of the most familiar and widely sold secret remedies. The proprietors are A. J. White, Ltd. (Mr. White was an American who died in 1899), of 35 Farringdon Road, London. When the present limited company was formed in 1897 with a capital of £1,000,000 [\$4,866,500], the vendor's profit was £900,000 [\$4,279,850]. The capital has since been written down to £300,000 [\$1,459,950]. It employs 250 to 350 persons and pays from £30,000 to £40,000 [\$145,995 to \$194,660] per annum in wages, and a hundred million bottles are said to have been sold. It cannot be sold, unless smuggled, in Germany (where it is prohibited by name except on a doctor's prescription), France, Austria, or Italy.

"For many years this preparation bore the statement that 'An old woman, Mother Seigel, on her last legs with dyspepsia, was given up by her relatives and was allowed to wander in the lanes around her native village in Germany, and that one day she chewed a leaf of an herb only found in those parts, and found immediate relief.' Your committee arrived at the conclusion that every detail of this statement was an invention. There never was a Mother Seigel or this wonderful herb, and the entire story appears to be a fabrication.

"This remedy is advertised as 'a cure for impurities of the blood,' 'a cure for dyspepsia and liver complaints,' and 'a cure for anemia,' and it is described as 'a highly concentrated, purely vegetable compound.' The statement that it is 'purely' vegetable was, we were told by the proprietors, 'apparently put in by the advertisement writer without proper

*Emphasis ours.

consideration.' It is incorrect, as the preparation contains hydrochloric acid and borax. It is made up in batches of 200 gallons, and consists, the proprietors state, of a mixture of eleven vegetable substances, and, therefore, as previously explained, it cannot be exactly analyzed.

"We considered 'Mother Seigel's Syrup' at great length, regarding it as in many respects a typical secret remedy.* To the representative of the proprietors we put no fewer than 1,607 questions, and we received much technical evidence concerning its contents from three analysts, and from the government chemist and his assistant. The analysis given in 'Secret Remedies' was disputed by and on behalf of the proprietors, and was defended by the analyst put forward by the British Medical Association. We think it well, therefore, to give in full the following analysis made for us by the Government chemist, as this also illustrates our remarks above upon the limits of analysis of preparations containing a number of vegetable extracts.

[Here follows the analysis of Mother Seigel's Syrup, showing minute amounts of an oil like sassafras oil, starch, vinegar or acetic acid, red pepper, aloes, boric acid, some chlorides, sulphates, phosphates, and vegetable extracts to the extent of 8 per cent, and about 40 per cent of molasses.]

"From the foregoing, the fact emerges that 100,000,000 bottles of an American mixture, originally recommended by an elaborate falsehood, and containing—apart from about 10 per cent of vegetable extracts, including aloes and capsicum, of whose names, therapeutic virtues, and money value we are ignorant—50 per cent of water and 40 per cent of treacle [a form of molasses] have been sold at the retail price of 2s. 6d. [60c] for three fluid ounces.

[Here follows a description of 'Daisy' Powders, which is shown to consist either of 5 grains of acetanilid or 8 grains of phenacetin. The acetanilid cost 18c. a pound, and in the form of 5-grain powders sold for \$1.92 a pound. The phenacetin cost 70c. a pound and sold for \$1.20 in the form of

8-grain powders. The committee says that "one of the highest authorities upon pharmacology informed us that acetanilid is a dangerous drug, and he went so far as to say that 'it ought never to be given under any circumstances.'"]

"(c) 'Fenning's Fever Curer.'—This is advertised in the following terms: 'The celebrated Remedy for the Prevention and Cure of Typhus or Low Fever, Cholera, Diphtheria, Scarlet Fever, Fluxes, Yellow Fever, Influenza, Black Fever, Dysentery, Windy Spasms, Sore Throats, Griping Pains, Low Spirits, Diarrhea, Smallpox, etc. Sore throats cured with one dose. Scarlet or Typhus Fever prevented or cured. Bowel complaints cured with one dose. Typhus or Low Fever cured with two doses. Diphtheria cured with three doses. Scarlet Fever cured with three doses. Cholera cured with five doses. Influenza cured with six doses.' The Government chemist informed us that this consisted of a dilute solution of nitric acid, flavored with peppermint. It is sold at 1s. 1½d. [27c] for about 8 fluid ounces. The estimated cost of the ingredients is ½d. [1c].

"(d) 'Antipon.'—'One of the most valuable discoveries in modern therapeutics, solving once and for all the vexed question of radical cure of obesity without harmful after effects.' A solution of citric acid in water, which we were informed would be without medical effect upon corpulency.

"(e) 'Vitadatio.'—'Will cure the most severe cases of cancerous growths, tuberculosis, consumption, heart trouble, and tumors.' We sent this to the Government chemist. It is apparently a decoction of bitter herbs, containing only 1.48 per cent of total solids, and no alkaloids or resins.

"(f) 'Veno's Lightning Cough Cure.'—'If it fails, no other medicine will ever succeed.' According to the statement of the analyst of the British Medical Association, this contains about 8 per cent of glycerine, with small quantities of alcohol, chloroform, and resin.

"(g) 'Mer-syren.'—'Composed of the active principles of certain rare plants which flourish in the valleys situated on the southern slopes of the Himalayas, between the immense gorge separating Nepaul from Bhutan on the east and Almorah on the northwest.' Rec-

*Emphasis ours.

ommended by 'Dr. Pearson, late principal Medical Officer, North Bhangul-pore, India.' No place named Bhangul-pore is mentioned in the Imperial Gazetteer of India. A cure for 'dropsy, insanity, smallpox, angina pectoris, diphtheria, erysipelas,' etc. No substance but potato starch could be detected by analysis.

"(h) **'Phosferine.'**—'The greatest of all tonics.' A weak solution of quinine in phosphoric acid. Professor Dixon informed us that this contains no phosphorus which can have a therapeutical effect, and that any other acid to make a solution of quinine would do equally well.

"(i) **'Steedman's Soothing Powders.'**—These contain, according to the Government chemist's report, 27.1 per cent of calomel. The directions for use for children say: 'One may be taken for three or four nights successively at any time when the child complains of being poorly.' The powders vary in weight, and a child may thus get 1 grain of calomel for several nights in succession. The toxicologist put forward as a witness by the proprietors admitted that 'that is a somewhat tall order.' In connection with this remedy we learned that the pamphlet entitled 'Hints to Mothers,' accompanying it and professing to be 'by an M.D., London,' recommending these powders on every page, was revised by a reputable London doctor, at the request of an advertising agent; that the references to these powders were subsequently inserted without the doctor's knowledge; and that 'M.D., London,' only meant a doctor living in London, and not, as would naturally be inferred, an M.D. of the University of London. It was not clear to us whether the proprietors and the publishers of this booklet were both responsible for the misstatement.

"(j) **'Matrozone.'**—Made in a northern seaport, and said to have a large sale in the north of England. The package contains two bottles, each holding 1 fluid ounce, and sells for 5s. 6d. [\$1.33]. The accompanying booklet says: 'This treatment is the result of the patient investigation of a minister of religion. . . . When a young man pursuing his studies with a view to qualifying for the medical profession, he was profoundly impressed by the death of a young wife,' etc. Its claim is as follows: 'Matrozone Promotes Natural, Rapid, and

Easy Confinement. Ensures Healthy, Beautiful, and Bright Children.' One bottle contained 68.9 per cent and the other 60.3 per cent of alcohol, with total solid matter too small to be weighed, such as might come from diluting the alcohol with tap-water, with no trace of any alkaloid.

"(k) **'Burgess's Lion Ointment.'**—Advertised to cure tuberculous tumors, piles, fistulas, rheumatism, gout, sciatica, etc. 'They are vegetable preparation.' The chief ingredient is lead olate (diachylon plaster), and no vegetable extracts or active principles are present.

"(l) **'Dearborn, Ltd.'** a company founded almost without capital, with one director and two shareholders, employs six persons—a secretary, a typist, two bookkeepers, and two packers. Its business consists in inventing fancy names for preparations (see par. 38), buying these from well known manufacturers, labeled with these invented names, and selling them as remedies for short hair, freckles, liver spots, etc., by means of correspondence passing between fictitious persons and real or fictitious correspondents, inserted as, but not marked as, advertisements in popular magazines. Sometimes these are followed by an avowed advertisement, to suggest that what precedes is not an advertisement.

"(m) **'No-Germo.'**—This was put upon the market, with full-page advertisements in the press, three months ago. It was announced in the following terms: 'The wonderful remedy invented by Gertrude, Lady Decies, has achieved a well deserved popularity by its success in curing the most stubborn Colds, Hay Fever and Influenza, Nettle-rash, Eczema and other Skin Diseases. It acts as a soporific in cases of Insomnia; it affords great relief in Asthma; it is a prompt and certain cure for Stings of Wasps, Mosquitoes, and other insects. It is very easy to use and perfectly safe.' The average composition is set out below:

Alcohol	58.3 per cent
Oil of Cinnamon.....	0.5 per cent
Camphor	1.03 per cent
Aumonia	0.33 per cent

The approximate cost of one bottle, selling at 2s. 3d. [54c.], is 3.64 pence, say 3 pence 3 farthings [7c.].

"Of the remedies discussed in this paragraph, no person connected with those lettered **e**, **d**, **e**, **f**, **g**, **h**, **j**, **k**, and **m** took advantage of our general invi-

tation to give evidence before us. We have, therefore, had no opportunity of hearing what they had to say in justification of their methods, or in criticism of the statements made to us by other witnesses in reference to the articles sold by them. Persons interested in the remedies lettered *a*, *b*, and *i* appeared before us, and it is only fair to state that they strongly contested the accuracy of the analyses furnished to us of the constituents of their remedies. In dealing with this latter group at some length, we have no intention of suggesting that these are exceptionally bad cases. The fact that these persons gave evidence creates a presumption that they were better able to face examination of their business and their goods than many others manufacturing secret remedies."

Examples of Fraudulent Claims

"The following are a few examples, which could be multiplied almost indefinitely, of fraudulent claims:

"The best remedy for consumption." (*Congreve's Elixir.*)

"Cures Bright's disease." (*Munyon's Kidney Cure*, consisting of sugar only.)

"It never fails to cure cancerous ulcers, syphilis, piles, rheumatism, gout, dropsy." (*Clarke's Blood Mixture.*)

"Bright's disease, stone in the bladder, dropsy, eczema, scrofula, . . . can be speedily cured." (*Warner's Safe Cure.*)

"The absolute specific for all, or some, of their phases' of 'syphilis and every form of venereal disease.' (*Wallace's Specific.*)

"Applied freely, will cure lumbago or sciatica in one night." (*Levasco.*)

TRICKS OF THE TRADE

Trick No. 1. The story of extraordinary origin of an ordinary prescription.—If the manufacturers of a secret remedy would state that their remedy was an ordinary prescription of some physician which was compounded and sold in large quantities, there would be lacking in the description of the remedy that element of the extraordinary or mysterious necessary to secure the faith of people in the wondrous action which is claimed for the rem-

edy; therefore, these manufacturers, when asked how they originated their remedy, where it came from, often put forward some extraordinary explanation of its development or discovery—that is, a discovery that the Patent Office will not recognize.

For example, the Select Committee of the House of Commons says in regard to Mother Seigel's Syrup: "For many years this preparation bore the statement that 'An old woman, Mother Seigel, on her last legs with dyspepsia, was given up by relatives and was allowed to wander in the lanes around her native village in Germany, and that one day she chewed a leaf of a herb only found in those parts, and found immediate relief.' Your committee arrived at the conclusion that every detail of this statement was an invention." Again, the extraordinary origin of "**Mer-syren**," "composed of the active principles of certain rare plants [the botanical names of which are not mentioned] which flourished in the valley situated on the southern slope of the Himalayas, between the immense gorge separating Nepaul and Bhutan on the east and Almorah on the northwest." [Apparently a difficult place to reach or to communicate with if one were disposed to investigate the veracity of the statement.] This stuff is recommended by Dr. Pearson of Bhangulpore, India. No such place appears in the list of post-offices of India. Another example, "**Tuberculozyne**," the great remedy for consumption, was the discovery of Dr. Dirk P. Yonkerman after research lasting for nearly twenty years. That statement implies that Dr. Dirk P. Yonkerman was an eminent chemist. As a matter of fact, he was a Michigan veterinary surgeon. He claimed that his remedy was due to the discovery of certain salts of copper of remarkable curative value in which the consumptive germs could not live. An-

alysis showed that his remedy did not have any copper in it, and that it consisted of glycerine, water, brown sugar, bromide of potash, and some red pepper, colored with cochineal. The Indian story is another type of the extraordinary origin of these "wonderful cures." An old Indian living in the coves of the Ozark Mountains finds and combines certain herbs into a preparation which gains great reputation among the Indians for curing certain troubles. Some secret remedy promoter, altruistically inclined, hears about the Indian's medicine, investigates it, and gives the wonderful remedy to the world at a price of a dollar a bottle. On investigation, the Indian's address has been lost and all of his relatives and his friends are dead.

Trick No. 2. The price of an invented name.—The secret remedies are very carefully christened. They are never named after an ancestor, wonderful as were many of their ancestors in their day. There is much originality displayed in naming secret remedies. Their names cannot be found in dictionaries, encyclopedias, botanical or chemical text-books. As an example, take "Koronium Bromide." See if you can find koronium anywhere. "Koronium Bromide" was a great fit curer. When analyzed by the Government chemist of Great Britain it was

curers got \$2.50 for every pound sold for calling strontium bromide, an ordinary chemical, "Koronium Bromide." Other examples of brilliant originality in the invention of fancy names (names not found in dictionaries or in botanical or chemical works) for ordinary substances that can be bought at a cheap price are Pure Colored Kalamax, Salith Leaves, Stallax, Pheminol, Pure Bisurated Magnesia, Allacile of Orange Blossoms, Tennaline, etc.

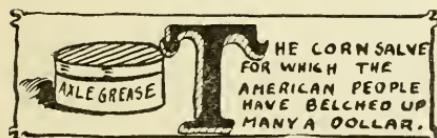
Trick No. 3. The aliases of secret remedy venders.—Many of these benefactors of the race, these great discoverers of cures, are too modest to

NATURE'S CREATION SUITS ALL OCCASIONS.
A CURE FOR SYPHILIS ALIAS CONSUMPTION ALIAS COUGHS ALIAS WHAT NEXT?

"OPEN YOUR MOUTH AND SHUT YOUR EYES" allow their real names to be known, so they offer suffering humanity their remedies under fictitious names. The Select Committee of the House of Commons says:

"The most disreputable class of proprietors of secret remedies trade under many aliases. As soon as one name becomes notorious, or when they have exhausted the credulity of the public for one remedy, they assume another name. Thus Crippen, the murderer, surgeon to the Druet Institute, was also M. Frankel. Elmer Shirley, who is still advertising extensively, has been Keith Harvey, Edward Meyer, the 'Sanalak Institute,' Marr and Erasmus Coleman. An American named Skinner was successively Scott, Symonds, London Stores, Professor Dana, Professor Pollock, and Horatio Carter. Nelson Lloyd, an Englishman, who sold a 'fat cure,' was in reality an advertising agent named Derry. Two Americans, Virgil P. Neale and Thomas Adkin, are the Cartilage Company, advertised to increase height; as Harriet Meta they sold a 'wrinkle eradicator'; as Kathryn B. Firmin of the Roman Solvence Laboratory they undertook to remove 'superfluous hair'; and as Everett Wood they offered to make hair grow on bald heads."

Trick No. 4. The coöperative mailing list.—"We were informed that



WHAT FOOLS WE MORTALS BE

found to be nothing but strontium bromide, an ordinary and well known drug—with this important difference, however, that strontium bromide can be purchased at from 50 to 75 cents a pound, whereas the venders of "Koronium Bromide," that is, strontium bromide rechristened, sold their product for \$3.24 a pound. These fit

there exists today agencies, one in Leeds which advertises frequently, and one or two in America, selling lists of names of sufferers from various diseases at so much per thousand. That is, a person about to put on the market a 'consumption cure' or a 'rupture cure' or a 'cancer cure' can buy a list of a thousand persons suffering from tuberculosis or rupture or cancer, these lists being the names of people who have at some time answered advertisements regarding these diseases and whose names and addresses thus possess a money value."—Select Committee of the House of Commons. This is a well developed practice in this country.

Trick No. 5. Substitution in secret remedies.—The Select Committee of the House of Commons says:

"It is not uncommon for the composition of a secret remedy to be altered without any change in the name. . . . The powder in one packet of 'Steedman's Powder' varied in weight from 1 9-10 to 4 1-2 grains. Sir Joseph Beacham informed us that 'Beacham's Cough Pills' at one time contained morphine, as that was considered to be a necessary [emphasis ours] medicinal ingredient; that when the law compelling the word 'poison' to be put on the label of the preparation containing morphine, the morphine was taken out of the pills; then so small a quantity was put in again that it was 'comparatively innoxious or perfectly innoxious,' and, therefore, did not need to be labeled 'poison.' That is, a potent drug was put in this remedy, taken out, and put in again without regard to its medicinal effect, but solely because of legal conditions under which it could or could not be sold."

Dr. Arthur J. Cramp, of the Propaganda Department of the American Medical Association, in a recent letter, says:

"Under the present system, that of secrecy of composition and selling the thing under a trade-marked name, the manufacturer has what is to all intents and purposes a perpetual monopoly on the name, and he is not hampered by having to use the same formula for

any two consecutive weeks. If the price of one of the ingredients goes up, he can substitute another, and no one is the wiser. As an example, at the present time, 'Laxative Bromo Quinine,' which in the past had for its essential drug phenacetin, now contains acetanilid. The probable reason for this change is that phenacetin sells for over \$30 a pound at the present time. Probably if 'Bromo Quinine' were a patented product, which, by the way, in my opinion, it could not be, because it lacks the elements which are necessary to the obtaining of a patent, it would not be possible for the manufacturer to substitute acetanilid for phenacetin and still retain a right to the patent."

Trick No. 6. Blackmail in the purchase of abortion producing remedies.

—The Select Committee of the House of Commons says:

"The trade in abortifacients [remedies that produce abortions] presents one of the most deplorable aspects of the secret remedy trade. Numerous remedies for 'female irregularities' are advertised.

"Blackmail is a natural result of the sale of abortifacients. In 1898 two brothers named Chrimes were sentenced to penal servitude for demanding, under threat of exposure, two guineas from women who had purchased their drug. The police intercepted in a short time no fewer than six hundred letters each containing two guineas [\$10.22 each, or a total amount of \$6,132]."

These ingenious benefactors of the race undoubtedly have many other interesting tricks which space does not permit us to go into; however, enough has been said to explain the confidence of the public in believing that these people are original—original and resourceful enough for any invention or discovery that they lay claim to.

QUANTITY OF DRUGS CONSUMED BY AMERICAN PEOPLE

From 1880 to 1910, thirty years, the population of the United States increased 83.3 per cent; the sale of manufactured remedies increased

740.5 per cent; in thirty years the POPULATION LESS THAN DOUBLED, WHILE THE CONSUMPTION OF MANUFACTURED MEDICINES INCREASED EIGHTFOLD.

The Commission on Proprietary Medicines of the American Pharmaceutical Association says:

"The number of proprietary medicines on sale in the United States is estimated at 40,000 to 50,000 items [brands]."

This Commission then states that this estimate includes the large number used by the medical profession [which are non-secret], but excludes the thousands of druggists' "own make preparations."

Wilbert, of the Division of Pharmacology, Hygienic Laboratory of the United States Public Health Service, says:

"It has been conservatively estimated that the people of the United States expend annually upwards of \$500,000,000 for medicine."

The advertising space devoted to the sale of secret remedies by the average newspaper is suggestive of the size of this business. In a careful examination of three of the larger daily newspapers of this State on three successive Wednesdays during the month of November, 1916, the per cent of the total advertising space devoted to advertisements of secret remedies was for "X" 5.3 per cent, for "Y" 13.6 per cent, and for "Z" 15.6 per cent. The Select Committee of the British House of Commons found that £2,000,000 [\$9,600,000] is spent in Great Britain annually in the advertisement of these remedies. Here it would seem pertinent to quote again the report of the Select Committee on

THE PRESS AND SECRET REMEDIES

"It may be convenient to speak at this point of the relation of the newspaper and periodical press to secret remedies. As so large a sum as £2,-

000,000 [\$9,733,000] or more is spent annually in advertisements of these remedies in one form or another of advertising, the trade is naturally of great importance to newspaper proprietors. In the case of most newspapers these advertisements constitute one of the most considerable sources of income, while a number of small provincial newspapers could probably hardly exist at all without secret remedy advertisements. All periodicals exercise some censorship over these advertisements. With a few, mostly weekly sporting low-class prints, fear of prosecution alone dictates a certain caution. Other papers draw a line of varying strictness. One newspaper only, the Spectator, we were informed, wholly excludes these advertisements; but a few daily papers also practically close their columns to them. The respectable press, speaking generally, refuses all advertisements having any suggestion of impropriety. Some papers of the so-called 'religious press,' we are told, show a wider hospitality to secret remedy advertisements, and many of an objectionable character have been found in their columns. It is also lamentably true that the cheap so-called 'home' weeklies, intended for the reading of girls and young women, contain advertisements of a grossly improper nature. Many improper advertisements from weeklies, sporting prints, 'religious' and 'home' papers were exhibited to us—including 19 advertisements of drugs obviously intended to be used as abortifacients in one provincial Sunday paper—but none of this character from high-class dailies or weeklies. We are convinced that the proprietors of the better class of newspapers and secret remedies alike would welcome a drastic suppression of suggestive or improper advertisements. The foregoing observations do not refer to the advertisements of swindlers like Macaura, the 'eye quacks,' the 'deaf quacks,' the cancer curers, the consumption curers, the electric belt makers, the curers of rupture without operation, or 'fakirs' generally. As regards these classes, most newspaper proprietors do not regard it as incumbent upon them to test the good faith of secret remedy advertisers, any more than of advertisers of other goods, though a few of the leading papers exercise a very severe censorship upon advertisements of this kind also. We must point out

further, in this connection, that the large sums received for the advertisement of secret remedies lead newspapers, either from discretion or under compulsion, to exclude from their columns criticism or discussion of secret remedies. When the British Medical Association, for example, issued their volume entitled 'Secret Remedies,' containing analyses, cost, etc., of a large number of proprietary medicines, not only was the volume not noticed editorially by most papers, but even an advertisement of it was declined by many journals, some of them of the highest class. A trial in Edinburgh in the course of which the judge described the business of the proprietors of 'Bile Beans' as 'based on unblushing falsehood for the purpose of defrauding the public,' was, we were informed, with few exceptions not reported in the press, and the remedy still has a considerable sale. The extent to which criticism of secret medicines is excluded from the press may probably be judged by any one who will take the trouble to see how much attention is bestowed by the newspapers upon your Committee's report.

"With regard to the advertisements in the medical press, we consider that adequate censorship has not in all cases been exercised, as indeed was admitted by Dr. Cox, the representative of the British Medical Association, and instances to this effect will be found in the evidence we received."

Tendency Toward Improvement

In this country due credit should be given to the press for the great improvement that has been made and is being made in respect to secret remedy advertising. Many of the larger papers of the country have either excluded secret remedy advertising altogether or have established a rigid censorship of such advertising. In our own State this movement is getting well under way. The Progressive Farmer has for a number of years excluded from its pages all advertising of secret medicines. The Presbyterian Standard, the Raleigh Christian Advocate, and the Christian Sun carry no advertisements of this nature, while the Biblical Recorder has decided to

exclude such advertising as soon as its present advertising contracts expire. Many secular papers of North Carolina, two of which are the Independent of Elizabeth City and the Greensboro Record, have excluded secret remedy advertising, while another group of papers, of which the Raleigh Evening Times and the State Journal are types, wish to take some practical steps toward censoring all advertising matter of secret medicines in order to eliminate that which is fraudulent and harmful. They are honestly desirous of discriminating between the false and the harmful and the true and safe ready-made remedy advertisement, but they must realize that as long as the ready-made remedy remains SECRET IN COMPOSITION, it is impossible to separate the sheep from the goats.

The National Advertisers' Association, realizing that the value of advertising depends upon retaining and building up the public confidence in the honesty of advertisements, is deeply interested in having some practical step taken towards the regulation of secret medicine advertising. At their recent meeting this association went on record as favoring exclusion of the following:

All advertising that is "fraudulent or questionable."

All advertising that is "indecent, vulgar, or suggestive."

All advertising that is "ambiguous in wording and calculated to mislead."

All advertising that makes "false, unwarranted, or exaggerated claims."

All advertising to laymen of "products containing habit-forming or dangerous drugs."

All advertising that makes "remedial, relief, or curative claims, either directly or by inference, that are not justified by the facts or common experience."

All advertising that may "cause injury in health or loss of confidence in reputable advertising and honorable business."

The Journal of the American Medical Association comments as follows

on the above statement of principles by the National Advertisers' Association:

"One might almost be excused for thinking that the Association of National Advertisers had the 'patent medicine' business specifically in mind when it drew up its declaration of principles. Certain it is that practically all 'patent medicine' advertising must be declared guilty on one or all counts in the association's indictment. It is impossible to escape the belief that the Association of National Advertisers hasn't much use for the nostrum fraternity. But the association did not stop with the mere declaration of principles. It backed up its words by declaring that its members, so far as they were able, would 'direct their advertising to those mediums which made the observance of these principles their rule and practice.' No wonder the 'patent medicine' interests are loudly proclaiming their willingness to be good. 'The devil was sick, the devil a monk would be; the devil was well, the devil a monk was he!' At present the nostrum industry is far from healthy."

Public Policy and Commercial Interest in Conflict

In this connection it is interesting to note that the State is spending about \$50,000 a year to teach its people that consumption is curable only by the adoption of certain hygienic habits of living, AND NOT BY ANY DRUG; the secret remedy interests, on the other hand, are spending thousands of dollars through the advertising columns of our State papers to teach exactly the opposite doctrine, to wit, that drugs will cure consumption. Somebody is lying.

The following tabulation is based upon inquiry of the 398 patients treated at the State Sanatorium for Tuberculosis. Of the 398 patients, practically 40 per cent had taken secret remedies, expending therefor a total sum of \$1,314.85, or \$8.01 per capita. Of course, the money spent by the patients for these medicines counts for very little; but the time

lost while relying on the medicine to cure their disease, varying from one to six months per patient, is the difference to some of them between life and death.

Name of Medicine—	Patients	Bottles	Cost
Dr. King's New Discovery.....	34	120	\$110.00
Lung Germine.....	9	27	135.00
Wine of Cardui.....	19	71	71.00
Dr. Pierce's	12	40	39.50
Vinol.....	11	51	51.00
Tanlac.....	5	12	12.00
Swamp Root.....	11	24	21.50
Black Draught.....	5	14	8.00
Lydia Pinkham Compound.....	4	10	10.00
Peruna.....	10	34	34.00
Mrs. Joe Person's Remedy.....	3	34	34.00
Eckman's Alterative.....	4	30	46.00
Cherry Pectoral.....	3	11	7.75
Liquozone.....	2	26	\$26.50
Acker's English Remedy.....	1	1	1.00
Ovo Ferrin.....	1	36	36.00
Phospho Albumen.....	1	4	5.00
Hydrolene.....	1	1	1.00
Sevetol.....	2	25	25.00
Dr. Hobson's Hypophosphites.....	1	1	1.00
Simmon's Liver Regulator.....	3	8	8.00
Dr. Hall's Catarrh Cure	2	21	14.85
Dr. Coble's Cough Syrup.....	1	1	1.00
Burdock.....	1	2	2.00
Dr. Slocomb's Remedy.....	1	2	2.00
Sychine.....	1	1	1.00
Honey and Tar.....	3	26	18.00
Milan.....	3	8	8.00
Pine Tar.....	3	11	7.25
Baclatone.....	1	1	1.00
Jayne's Expectorant.....	1	1	1.00
Osage.....	1	15	2.50
Phalopti.....	1	1	1.00
Milk Emulsion.....	1	4	2.00
Ozo Emulsion	1	3	3.00
Dr. Miles.....	2	17	17.00
Grove's Chill Tonic.....	1	12	12.00
S. S. S.....	2	4	4.00
Doan's Kidney Remedy.....	2	2	2.00
Gold's Medical Discovery.....	1	1	1.00
Electric Bitters.....	1	1	1.00
Ozol.....	1	6	6.00
Pinex.....	3	6	6.00
Codol.....	1	2	2.00
Yonkerman's Tuberculozyne.....	1	*	40.00
Y. M. C. B.....	1	6	6.00
Phosphon Oil.....	1	7	7.00
German Flam.....	1	3	3.00
Cough Mixture.....	1	2	.50
Wine of Life Root.....	1	1	1.00
Upman's Valuable Electuary.....	1	1	1.00
Celery Compound.....	1	3	3.00
Crosotone.....	1	3	4.50
Vinetone.....	1	8	4.00
Syrup of Figs.....	1	1	1.00

\$869.85

† Tubes.

* Four months treatment at \$10 per month.

The following patients could not give the name of medicine or number of bottles:

? -----	1 Case No. 275	?	\$ 100.00
? -----	1 Case No. 217	?	100.00
? -----	1 Case No. 190	?	175.00
? -----	1 Case No. 270	?	50.00
? -----	3 Cases No. ?	16	20.00
			\$1,314.85

THE OPEN FORMULA WILL PROTECT THE PRESS

Under present conditions the newspaper must either take all or reject all secret remedy advertisements. It cannot discriminate, for all secret remedies are masked. The newspaper business is competitive; the life of a newspaper often depends upon a narrow margin of profit. Therefore, the newspaper that declines the remunerative secret remedy advertisement while in competition with a paper that accepts this source of revenue assumes considerable risk.

The vast majority of newspapers are honest, patriotic, high-minded; they would not sell, knowingly, and **conditions permitting**, the confidence of their friends and subscribers to charlatans. However, present conditions do not permit them to know when a secret remedy advertisement is honest and when it is false. The "open formula," the removal of the mask, will enable them to know the true and the false, the valuable and the dangerous ready-made remedy. The dangerous and false remedy should not be advertised; the safe and true remedy should be given the widest notice in the interest both of press and public.

EFFECTS OF PATENT MEDICINE

On this division of the subject much can be deduced through our quotations from the Report of the Select Committee of the House of Commons.

Effect No. 1.—The secret remedy business, through its extensive adver-

tising, influences a large number of people to rely on drugs when they should be influenced to rely upon the adoption and cultivation of proper habits of living. Example: from 20 to 30 per cent of the adult population of this country is constipated and suffers from time to time with what they call "torpid liver," "liver out of fix," "a general no-account feeling." What these people need is to drink plenty of water, including a glass of warm water before breakfast, to take a diet containing a good amount of vegetable matter and fruit, and to cultivate regular habits of going to stool, regular habits of exercise, and, if necessary, special exercises of bending motions, forward and sideways, twisting motions such as compress the abdominal contents and develop the abdominal muscles. The effect of taking purgatives for this condition and neglecting these right habits of living causes the bowels to become more and more dependent on artificial stimulation, so that when the purgative remedy has been taken for some time the patient, although relieved temporarily, is permanently in worse shape than when he began the treatment. Secret remedies, in inculcating habits of disobedience to nature and reliance upon artificial agents, are particularly harmful.

Effect No. 2.—The second harm done by secret medicines and secret appliances may be illustrated by the oxypathor of late renown. As will be remembered by North Carolina people, the oxypathor was nothing more than a tube filled with some inert substances and having wires attached to it through which its promoters claimed electric currents passed from the tube to the body of the patient. The people were charged \$35 for the oxypathor. This little toy never hurt anybody except by robbing them of \$35, and possibly by—

Effect No. 3.—Many people in the incipient stages of tuberculosis, cancer, Bright's disease, and other diseases, are influenced by the manufacturers and venders of secret remedies to believe that by taking one of these remedies their disease will be cured. They buy the remedy, spend from two to six or probably twelve months in trying it out, and then, on finding they have gone from bad to worse, they consult a physician and find out they have tuberculosis, cancer, or some other disease that has passed from an incipient and a curable condition to a well developed and possibly incurable condition. Many lives are lost through this effect of secret remedies.

Effect No. 4.—The Select Committee of the House of Commons says:

"There can be no doubt that many persons acquire the drink habit by taking these wines and preparations [remedies containing from 14 to 30 per cent alcohol] either knowing that they are alcoholic, since they can be purchased and consumed without giving rise to the charge of drinking, or in ignorance that they are highly intoxicating liquors."

As an illustration, according to the State Chemist of Michigan, Tanlac consists of a mixture of alcohol of about 17 per cent—that is, about the strength of Sherry wine or three times the strength of beer or one-third the strength of good whiskey—and purgatives. Now, why shouldn't any one taking Tanlac feel better, with the stimulation of its whiskey and the relief from its purgatives which get rid of the accumulated poisons of the bowels? But why shouldn't the users of Tanlac know what they are taking? Of course, the prohibitionists would object to people taking all the liquor that the advertisements of Tanlac indicate they are taking. The Tanlac allowance beats the legislative allowance of two quarts monthly all hollow. If (and we have no reason to doubt) the State Chemist of Michigan

is correct in his analysis of Tanlac, this up-to-date secret remedy affords us a beautiful example of the typical secret remedy. The manufacturer, knowing the craving of the masses for artificial stimulants, and knowing the large number of people suffering from constipation, has combined alcohol and purgatives in a way to meet the popular demand. There are very few intelligent people that would knowingly take alcohol and purgatives for the relief of either worry or constipation.

Effect No. 5.—Dr. Martin I. Wilbert, of the Division of Pharmacology of the United States Public Health Service, associates the increasing death rate in this country from degenerative diseases, such as chronic Bright's, high blood pressure, apoplexy, diabetes, cirrhosis of the liver, etc., causing the death of over 200,000 persons annually, with the increasing consumption of drugs, as brought out in another section of this article. He raises the interesting question as to whether there is any connection between the increase of more than 100 per cent in the deaths from this class of diseases and the increase of 740 per cent in the consumption of drugs that has taken place during the past thirty years. Dr. Wilbert then goes on to say:

"When one considers the potential possibilities for harm inherent in practically all drugs and preparations it is astonishing that attention has not earlier been directed to the need for careful, systematic study of the possible untoward influences of the several drugs used. * * *

"All of the important or active medicaments must of necessity have harmful influences when taken indiscriminately or for a continued length of time. It has been very properly asserted that the activity of drugs may vary to an infinite number of degrees. It may be accepted as fact that whenever the activity is sufficient to produce a decided therapeutic effect in disease it is also sufficient to produce a deleterious effect when improperly used, either as to time or quantity. In

other words, useful drugs are of necessity poisonous substances which tend to derange normal processes of the human organism, and many of them must of necessity be extremely injurious to the various organs of the body if used at all liberally for any appreciable length of time. * * *

EXPLANATION OF PUBLIC CONFIDENCE IN THE SECRET REMEDY

Explanation No. 1, or the Psychology of Advertising.—No secret remedy can find a sale or exist without advertising. Advertising a secret remedy is absolutely essential to its existence. As the peeled saplings which Jacob placed before the gravid sheep caused a mental impression on the animals sufficient to mark their offspring, so the constant and conspicuous secret remedy advertisements ever before the eyes of the public finally grip the public mind so as to color its thoughts and influence its actions.

Explanation No. 2, or Superstition and Cure.—We are all superstitious. Superstition is not restricted to any class; we find it in both the ignorant and intellectual, differing only in degree; it is our common heredity. From out of our prehistoric past, out of the past of legend and myth, and still further back from the childhood and infancy of the race, we have brought up with us various forms of superstition. We don't want to see the new moon through the trees; we don't like to sit down with thirteen at the table; we hang horseshoes over our doors; we carry buckeyes to keep off rheumatism and to cure piles; and we take the gallstone of the deer, moisten it, and stick it on the fresh bite of rabid animals to prevent hydrophobia. The very wisest men of England at one time shared the belief with the masses that the touch of the king was almost an infallible cure for scrofula. This faith in the mysterious, this inherent trait of human nature, is responsible

for much of the confidence of the people in those secret remedies that claim some extraordinary origin.

Explanation No. 3, or the Tendency of People to Confuse Coincidence with Cause and Effect.—Dr. Osler, in going through the wards with medical students, would often point to a typhoid fever patient who had never received a single drop or grain of medicine and who was getting well in the third or fourth week of the disease, and would then remark: "What a great pity that old Dr. X had not had a chance to give that patient his infallible remedy for the cure of typhoid fever. What a fine demonstration that patient would have made of its wonderful effects." Scientific medical literature contains numerous examples of instances like the following: The medical staff of a certain hospital adopts a new treatment for pneumonia. The first twenty-five cases of pneumonia admitted to the hospital make prompt and complete recovery under the new treatment. The younger, less experienced, and more enthusiastic staff of the hospital are anxious to rush into print with the wonderful effects of the new treatment. The older heads say, "No; let's wait until we get a few more cases." Out of the next ten cases admitted, eight die; and no report of what appeared to be a new discovery ever occurs, for the fatality under the new treatment is just what it has been for fifty years under the old treatment—about 25 per cent. A person has pneumonia; a friend drops in on the fifth day and advises the family to apply some Gowan's Pneumonia Cure. The next day the crisis occurs. The patient passes within a few hours from the edge of the grave back to a condition of safety. What a wonderful remedy! But another patient living in another part of the town and with the same identical symptoms did not have any Gowan's Pneumonia Cure ap-

plied on the fifth day, and the crisis occurred on the sixth day just as in the case that had an application of Gowan's Pneumonia Cure. The great majority of diseases are cured by Mother Nature. The human body began its fight with the causes of disease and death many years ago, long before either secret or open remedies were discovered or concocted. The cells that make the body are soldiers of long experience in dealing with germs and their allies. In ninety-five recoveries out of a hundred Nature, the fighting cells of the body, turns the trick. Before people are justified in recognizing a remedy as a cure they must be careful to distinguish between occurrences that are merely coincidents and occurrences that stand in the relation of cause and effect.

Explanation No. 4, or Apparent Relief and Real Harm.—Assuming that the State Chemist of Michigan is correct in stating that Tanlac consists of a combination of alcohol and purgatives, this remedy, as we have elsewhere pointed out, furnishes an excellent example of this explanation of public confidence in secret remedies. Tanlac will, no doubt, make any one who takes it feel better, especially if such a person is constipated—and about 25 per cent of the people are constipated. The same effect can be obtained for less money by taking the equivalent amount of whiskey as a stimulant and some of the simple purgatives. The fact that this remedy stimulates and makes a torpid bowel throw off the poisons of the body does not mean that the drug has done the person any permanent good. Like all stimulants, the person taking such a drug becomes more dependent upon the artificial agent and farther removed from those natural agencies, the hygienic habits of life, which constitute the sure foundations of health.

THE PUBLIC REMEDY FOR THE SECRET REMEDY

For darkness, light; for ignorance, information; for secrecy, publicity.

There is little that is fundamentally wrong with the ready-made remedies except their secrecy. Let them show their face and go where they please; let them cease to go up and down the earth under a mask seeking whom they may devour. Justice demands the "open formula," that is, that the manufacturer of the secret remedy put the name and amounts of the active ingredients of the remedy on the package.

So far we have relied much upon the Report of the Select Committee of the House of Commons. However, when we come to ask for the "open formula," we cannot count on the support of the Select Committee, but we must go directly against their recommendations, for this Committee declined to recommend the "open formula." It is most interesting to note the reasons given by the Select Committee for their position with reference to the "open formula." Their reasons are two, and as follows:

(1) They state that "It would beyond question inflict a grave hardship, sometimes amounting to ruin, upon proprietors of secret remedies, or the loss of their investment upon shareholders in limited companies. Any long established remedy in the lawful advertising and sale of which very large sums have been spent would immediately be faced upon the market by a score of preparations advertised as made from the same formula and sold at a much lower price." The Select Committee seems to be unwilling to permit competition in the sale of medicines. The Select Committee apparently believes in protection, in the protection of the few manufacturers against the interest of the public. As an example, let us take "Fenning's

Fever Cure," which the Select Committee points out costs 1 cent for 8 ounces and which the manufacturers sold for 27 cents. The Committee seems to think that the manufacturers of this remedy should be protected against a fair rate of profit which non-secrecy and competition would bring about. Let unhampered competition, the basis of trade, fix the price—not in behalf of the manufacturer who sells 1 cent's worth of medicine for 27 cents, but in behalf of justice and the public interest. We respectfully submit that this argument advanced by the Select Committee as a reason for maintaining the secrecy of secret remedies is not an argument **for** secrecy, but one of the strongest arguments **against** secrecy.

(2) The Select Committee says: "The disclosure that a remedy contains or consists of 'acetyl-salicylic acid,' or 'hexamethylene-tetramine,' or 'phenolphthalein,' or 'takadiastase,' or 'emplatrum plumbi,' or even 'acetanilid,' or 'potassium iodide,' would be meaningless to most people." Exactly; so a fertilizer with its formula given on the sack stating that it contains total phosphoric acid, available phosphoric acid, water-soluble nitrogen, sulphate of potash, organic nitrogen, etc., is still meaningless to many farmers, and was (shortly after the law requiring the composition of fertilizers to be put on the sack went into effect) meaningless to practically all of them; but the farmers, with the formula of a fertilizer on a sack, can ask their county farm demonstrator or write to their State Department of Agriculture and find out what effect on cotton or corn or tobacco the ingredients of a certain given brand of fertilizer will have. Why cannot the Government afford sick people the same privilege of intelligent action in the treatment of their diseases and their sick children that it affords the

farmer in the treatment of his cotton and his corn? If it is wrong to require the manufacturers of secret remedies to put the formula of the remedy on the package, it is equally wrong to require the manufacturers of fertilizers to put their formula on the sack. The State Government of North Carolina should do one of two things: It should either require the formula of secret remedies on the package, or it should repeal the fertilizer act of 1907, and say to the fertilizer manufacturers of this country, "Trademark as many brands as you can; advertise your brands any way that you please; do anything—fill the sack with sawdust or ashes; do anything else that you like,—and if the farmers are fools enough to buy them and use them, all right."

So much for the arguments of the Select Committee against the "open formula," and our answer.

The secret remedy interests will almost undoubtedly bring forth another argument, what we might call the "half-loaf" argument. The secret medicine interests, representing an invested capital estimated at \$300,000,000, have for a long time recognized that eventually the "open formula" as the solution of the secret remedy business must come, and, therefore, they have yielded, in the way of Federal legislation, just enough to deter public sentiment through the satisfaction of an incomplete victory. These interests will make the point that the Federal Government requires the quantity of the following drugs to be placed upon the label of a bottle or package of secret remedy containing these drugs: alcohol, morphine, opium, cocaine, heroin, alpha or beta eucaine, chloroform, cannabis indica, chloral hydrate, or acetanilid, or any derivative or preparation of any such substances contained therein. They will also make the point that the Federal

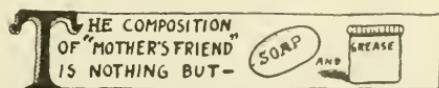
Government prohibits "false and fraudulent" claims regarding the curative powers of a secret remedy. In short, the secret remedy interests say to the public: "Trust your Government (that is, the Federal Government). They are protecting you. You need not worry about this matter."

Let us look at this argument. Why does the Federal Government stop with requiring nine drugs, if contained in a remedy, to be placed upon the label? The Canadian Act regarding secret remedies requires thirty-four drugs, if contained in a secret remedy, to be stated upon the label. If it is right and just to require **some** drugs known to be physiologically active to be stated upon a label, why is it not right to require **all** drugs known to be physiologically active to be stated on the label? Of course, if an ingredient of a secret remedy is inert, without any effect, the manufacturer could not have any objection to disclosing that ingredient unless he wished to commit a gross fraud. Why should the Government of the United States require secret remedy manufacturers to put opium, if it is contained in a medicinie, on the package and permit them to sell secret remedies recommended for "female irregularities," "unusual delays," containing abortion-producing drugs without a like statement on the label?

Again, the secret remedy interests make the point that the Federal law against "false or fraudulent" claims will be sufficient to protect the people against fraudulent advertising. Let us look at that claim. A committee of the American Pharmaceutical Association says that there are from 40,000 to 50,000 brands of proprietary medicines on the market. The majority of these brands are secret in composition. That is to say, we probably have somewhere in the neighborhood of 25,000 brands of secret remedies on the market in

the United States. In the last two and a half years the Bureau of Chemistry of the United States Department of Agriculture has prosecuted about one thousand manufacturers for false and fraudulent advertising. When this law was passed most of these manufacturers employed astute lawyers to assist in revising their labels so that the claims on the label, literal and implied, might be as liberal and as far-reaching as possible and yet technically within the law. When the Bureau of Chemistry prosecutes for "false or fraudulent" claims a long legal battle is on, and necessarily, under the circumstances, the Bureau of Chemistry cannot get far in purifying the advertising of 25,000 brands of secret remedies when their advertising is skillfully taken care of by those who know the loopholes in the law. And further, what difference does it make if the Bureau of Chemistry does put out of commission two or three hundred brands out of 25,000 brands of patent medicine a year. What is the use of doing away with the electropoise to make a place for the oxydonor? What is the use of doing away with the oxydonor to make place for the oxybon? What is the use of doing away with the oxybon to make a place for the oxypathor? What is the use of doing away with Tanlac to make room for Lactan?

The point is, we can never control the secret remedy business by dealing with the individual secret remedy. To properly control this business, we must deal effectively with its fundamental principle, and that means elimination of secrecy—the business of selling the public something in the dark.



WHAT'S IN A NAME?

BENEFICIAL EFFECTS OF LIGHT or MAKING BAD MEDICINE GOOD MEDICINE

"Let there be light" was God's first order. Light is the greatest remedial agent against dirt, disease, fraud, and crime; where there is no light man is puny and sin abounds. Light is the true antidote for all the evil effects of ignorance. When the light is turned on this secret remedy business, when the people are permitted (1) to know what is in a medicine, and (2) to find out through their Health Department what the effects of the contained drugs are, they will discriminate between preparations that are inert and harmful and preparations that are potent and helpful. The law of the survival of the fittest will touch the secret remedy business and the worthless and dangerous will be replaced by the valuable and safe; a class of ready-made remedies of real merit will evolve as the people become educated to the action of drugs. A simple illustration of this principle is: X and Y are two dairymen selling milk in a certain town. X has a fine dairy, his cows are healthy and clean, his barns well constructed, the milkers are careful in handling the milk. The opposite conditions obtain in the dairy of Y. Y can sell cheaper milk and underbid X because he takes no pains with his milk. X would like to make still further improvements in the production and care of his milk, but he is held down by his unscrupulous competitor. The town, by and by, adopts a system of milk inspection, grading the dairies and publishing the grade of the dairies supplying the milk. The people of the town are then told that X's dairy scores 95 out of a possible 100, and Y's dairy scores 55. Now what happens? Instead of Y pulling X down, Y has to improve his milk and make it safe. X lifts Y. That is what light does in the

regulation of dairies, in making dirty dairies clean. Light will do exactly the same thing with the secret remedy manufacturers. It will make those manufacturers who are selling worthless and harmful drugs change the composition of their remedy and methods of manufacture in order to meet the competition of the manufacturer who makes the valuable and safe remedy.

Therefore, the "open formula," the doing away with the element of secrecy in ready-made remedies, is a positive advantage to every manufacturer of a remedy of merit; it is fatal, however, to the opposite class.

WHAT WE NEED IN THE WAY OF LEGISLATION

An act that makes two provisions: (1) Requiring all trade-mark remedies (that is, all remedies other than truly patent medicine and the official remedies of the Pharmacopoeia) to publish the ingredients of the medicine on the package. (2) An officer of the State Government, an expert on the action of drugs, of whom any person in North Carolina may make inquiry, without cost, as to the action of a drug or combination of drugs contained in any ready-made remedy.

TANLAC TYPICAL EXAMPLE OF THE SECRET REMEDY

A typical example of the secret remedy as herein described is Tanlac. This remedy is taken as an example not for any merit or lack of merit it may have, nor because we consider it the worst or the best of its class, but because, first, it is probably the most widely known secret remedy in North Carolina, an entire train load consisting of seventeen car-loads, or 208,000 bottles, having been sold in the State in eight months, according to the Tanlac Bulletin, Vol. 1, No. 1; second,

Tanlac is found to have a large number of the secret remedy characteristics, known and treated elsewhere in this bulletin as "Tricks of the Trade."

Tanlac is a typical secret medicine, first, in that its composition is secret. Neither the names nor the amounts of its ingredients are published on the package. Second, it claims a very extraordinary origin. One of its advertising sheets carries the picture of an icy mountain-side clad in fir trees, with the reading, "The Alps—Tanlac elements come from remote sections of the Globe." Again, its own advertisements claim for it: It "is not what is called a medicine; it is more than a medicine, being the liquid maximum strength of medicinal properties of a plant discovered by Cooper's uncle, a celebrated scientist, which plant properties, together with other ingredients, obtained their high efficiency under the personal direction of

lac by the American Medical Association, June 15, 1915:

"One original bottle of Tanlac, manufactured by the Cooper Medicine Company, Dayton, Ohio, was submitted to the Chemical Laboratory for examination. The bottle contained 8 ounces of a brown liquid having a wine-like odor, and also an odor somewhat resembling wild cherry. The taste was bitter, resembling gentian. The specific gravity of the liquid at 15.6 C. was 1.0205. Qualitatively, tests disclosed the presence of alkaloids, berberin being isolated and identified. Other alkaloids besides berberin were present, but not identified. Hydrastin and the commoner alkaloids were not found. Tests for emodin were positive. Acid caused precipitation, the precipitate having an odor of licorice. After purification, and treatment with ammonia, the ammonium salt of glycyrrhizic acid was detected. A relatively large proportion of glycerin was present. A small amount of tartaric acid was detected, which would indicate a wine. The residue, which weighed 11.1 per cent, was largely glycerin. The ash was 0.25 per cent. The amount of alcohol was found to be 15.70 per cent of absolute alcohol by volume. The weight of the alkaloids was 0.017 per cent."

"From the examination, it is concluded that Tanlac is probably a vinous extract containing essentially a bitter drug (such as gentian), an emodin-bearing drug (such as buckthorn, rhubarb, or cascara), a berberin-bearing drug (in which hydrastin is not present, such as berberis aquifolium), glycyrrhizic acid (from licorice), flavored with wild cherry, and to which has been added a relatively large proportion of glycerin."

A later report given of Tanlac by the Journal of the American Medical Association, February 26, 1916, is:

"As we still have a good many inquiries regarding Tanlac, it seems worth while to reprint the report of Food Commissioner Helme of Michigan on the product. The findings of the Michigan chemists agree essentially with those of the Association's chemical laboratory. Here, in part, is the Michigan report:

"A new panacea for the cure of 'all ailments of the stomach, kidneys, and liver, catarrhal affections of the mu-



WHO SAID PROHIBITION PROHIBITS?

Herr Jos. Von Trimbach, a native German chemist of note in charge of the Cooper laboratory." Third, Tanlac has an invented name. It is not found in the dictionary, the encyclopedia, or in any medical or botanical works. Its ingredients may never be known through its name. Fourth, Tanlac is a new name, but it is a product of the Cooper Medicine Company of Dayton, Ohio, that operated ten years ago. "Cooper's New Discovery" contained 17 per cent alcohol and was sold as a "tonic and system purifier." Tanlac contains 17 per cent alcohol and is sold as a "tonic and system purifier." See Trick No. 3, p. 57.

The following is the chemist's report of an examination made of Tan-

ous membranes, rheumatism, nervous disorders and the like,' is offered to the public under the name of Tanlac. The label on the bottle neatly avoids the pure drugs act by claiming to be only a 'tonic and system purifier.' An analysis of Tanlac in the laboratory of this department shows the following:

Alcohol	16.4 per cent
Glycerin	2.0 per cent
Licorice	Present
Aloes or Cascara.....	Present
Gentian	Present
Alkaloids (Berberin).....	Trace

"The presence of a trace of tartaric acid shows that wine is the base of this medicine. The 16 per cent alcohol gives it the 'kick' that makes a fellow feel good, and ought to fill a long-felt want in 'dry counties.' Aloes is a laxative. Gentian is a bitter drug, a so-called tonic. If the reader wants to be cured by the Tanlac route at one-fourth the expense, let him get a quart bottle of good sherry wine. Then go to the local druggist and get 1½ drams of glycerin and 2 drams each of aloes, gentian, licorice, and cascara. Mix (if you wish) and you will have Tanlac so near that neither you nor the manufacturer can tell the difference. This formula will give four times the quantity found in an ordinary \$1 bottle of Tanlac."

The Effects of Tanlac

Tanlac depends for its effects on three constituents which, in the order of their importance, are alcohol, purgatives, and bitters.

The alcohol in Tanlac produces a feeling of exhilaration, and dulls the edge of care in precisely the same way that whiskey does. Tanlac is 16 or 17 per cent alcohol; whiskey, about 50 per cent; beer, about 5 or 6 per cent; ordinary wine, about 10 or 12 per cent; sherry wine, about 17 per cent. The purgatives contained in Tanlac relieve constipation by causing the bowels to throw off poisons that otherwise would be absorbed, producing perhaps a headache, a furry tongue, loss of appetite, and that "no-count feeling"—a combination of symptoms frequently referred to by the laity as

"torpid liver." The bitters, in combination with the alcohol and the purgatives, tend to stimulate and increase the appetite, which is always a welcome and hopeful sign to the patient.

People who want temporary stimulation, and to get rid of their pains and troubles by the alcohol or whisky route, will secure much relief from Tanlac. Those who are constipated, which is a large per cent of our population, and who want to relieve their constipation by taking purgatives and not by correcting their habits of eating and their neglect of hygienic living, will also find relief in Tanlac.

HOW MUCH BETTER IS A MAN THAN A SHEEP?

Nebraska, Oregon, and South Dakota require the open formula on stock remedies. "A number of States require full and complete publicity in connection" with remedies advertised to kill the insects and lower forms of life; for instance, fungi on fruit trees. An interesting fact in connection with the open formula for stock remedies is that some of these State laws contain a proviso that if a remedy is sold for both stock and human beings, the open formula shall not be required. It is up to the secret remedy interests to show that these States adopting the open formula for the treatment of fruit trees and their stock and poultry are unjust and too careful in caring for their trees and animals.

If cotton, corn, tobacco, fruit trees, chickens, turkeys, horses, cattle, sheep, and hogs are entitled to the protection of the open formula, why are not men, women, and children entitled to the same protection?



NOTHING FOR SOMETHING



